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A detailed study of Alaskan education and population reports and statistics, and evaluation of regional sites has resulted in recommendations for a two-phase facilities implementation plan: (1) construction of 6 large regional secondary schools (by 1974) and a center for Arctic Education and Research (by 1969) and (2) completion of a total of 14 secondary schools by 1980. Educational objectives, school and housing needs, compensatory programs, costs and funding, and the economic and social impact of regional secondary schools are discussed. Summary recommendations, a bibliography, and appendices conclude the document. A related document is RC 002 508. (SW)

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STATE OF ALASKA
REGIONAL SECONDARY SCHOOL SYSTEM

IMPLEMENTATION PLAN

FINAL REPORT

February 1967

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STATE OF ALASKA
REGIONAL SECONDARY SCHOOL SYSTEM

IMPLEMENTATION PLAN

Final Report to the
Alaska State Department of Education
3 February 1967

Prepared by
Training Corporation of America
J. K. Cummiskey and J. D. Garcia
Principal Investigators

ABSTRACT

TCA has developed this implementation plan through a detailed study of Alaskan educational and population statistics and reports, on site evaluation of Alaskan communities and interviews with more than one hundred Alaskan administrative, educational and BIA personnel. The interim report was prepared by John Garcia, the final report by J. Kenneth Cummiskey with the assistance of our consultants, J. R. Saroff and R. C. Coates.

A two phase implementation plan is presented recommending the construction of six large regional secondary schools by 1974, and a total of 14 secondary schools by 1980. Specific counselling, cross-cultural and dormitory programs are discussed along with a recommended Center for Arctic and Educational Research. Cost estimates are made covering the first seven years of the program, and alternative methods of funding are suggested.

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PART ONE

SUMMARY AND RECOMMENDATIONS

1.1 Introduction

The responsibility for educating Alaska's youth rests with the citizens of Alaska. The problems of providing quality secondary education to a widely dispersed population are many. The additional problems of educating a population with extreme variance in cultural background and educational experience are no less numerous. The challenge is far greater than providing schools -- or seats in schools. The challenge is to give all of Alaska's young people the opportunity for an education, and the motivation necessary for academic achievement and social adjustment.

This is a challenge to legislators for finance, administrators for organization and operation, professionals for curriculum adaptations, teachers for inducing learning, and to sociologists and psychologists for developing a supportive environment for the newly or soon-to-be acculturated. An efficient, successful program requires the combined efforts and experience of all those interested in quality education for Alaskans.

1.2 General Educational Objectives for Secondary Education for Rural Alaskans

Lacking a definitive statement on educational goals, TCA has assumed that the state of Alaska aims to:

1. Provide quality education in Alaska for all Alaskan students.

2. Provide indirectly for the economic improvement of Alaska's rural areas.

3. Provide educational programs which will promote the maximum academic and economic advancement for all students.

The Interim Report[1] discussed in detail the criteria for quality education. To summarize, the ideal high school must have at least 500 students and graduating classes of 100 or more students; there must be a comprehensive curriculum accommodating students from varied backgrounds with varied goals; and the school should reflect an urban technological society.

Within these general criteria, five specific educational objectives have served as guidelines to TCA for developing this implementation plan:

1. The immediate objective is to provide educational opportunities for all Alaskan youth within the state boundaries.

2. All students should have the opportunity, and be encouraged, to attend high schools with at least 25 teachers and 500 students.

3. All students should have an education which exposes them to fellow students from varied racial and socio-economic backgrounds.

4. All students should be offered a comprehensive academic curriculum with courses in basic education, and vocational or college preparation.

5. The ultimate goal of the state should be a school system which sees that approximately 90% of the school-age population is graduated from high school and that 75% of the high school graduates continue their education in vocational, commercial, or academic areas.

---

[1] Secondary Education for Rural Alaskans, Interim Report, Training Corporation of America, November 1, 1966.

To achieve these objectives a secondary school boarding system is essential. The advantages and disadvantages of dislocating a student from his home and providing him a group living situation in an urban area with a varied educational offering have been outlined by TCA in The Interim Report, by the Governor's Committee on Education,[1] and by many other groups. An urban, integrated education with programs for minimizing geographic and cultural dislocation is, in TCA's judgement, the most advantageous to Alaska. Programs for minimizing cross-cultural problems are suggested in Part II, Section 2.3.

1.3 Recommendations for Developing a Regional High School System for Rural Alaskans

1.3.1 Background: Description of Existing Alaskan High Schools

In order to allow for maximum utilization of current facilities, the recommendations in this section are based on an expansion and adaptation of the current secondary educational system. The current Alaskan High Schools are shown in Table 1, page I-4 with 1966 attendance figures. Location of these schools is shown in Figure I-1.

To achieve a high quality, integrated educational experience in large comprehensive high schools in Alaska, a rather limited number of options are currently available. High schools in this category are in: Greater Anchorage, North Star Borough, Kenai Borough, Juneau, Ketchikan, Kodiak, Sitka, and Matanuska-Palmer.

Petersburg, Valdez, Wrangell, Cordova, Haines, Seward, Wasilla, and Homer provide the opportunities for integration, but lack either size or comprehensiveness.

[1] An overall Education Plan for Rural Alaska, (Revised), February 28, 1966

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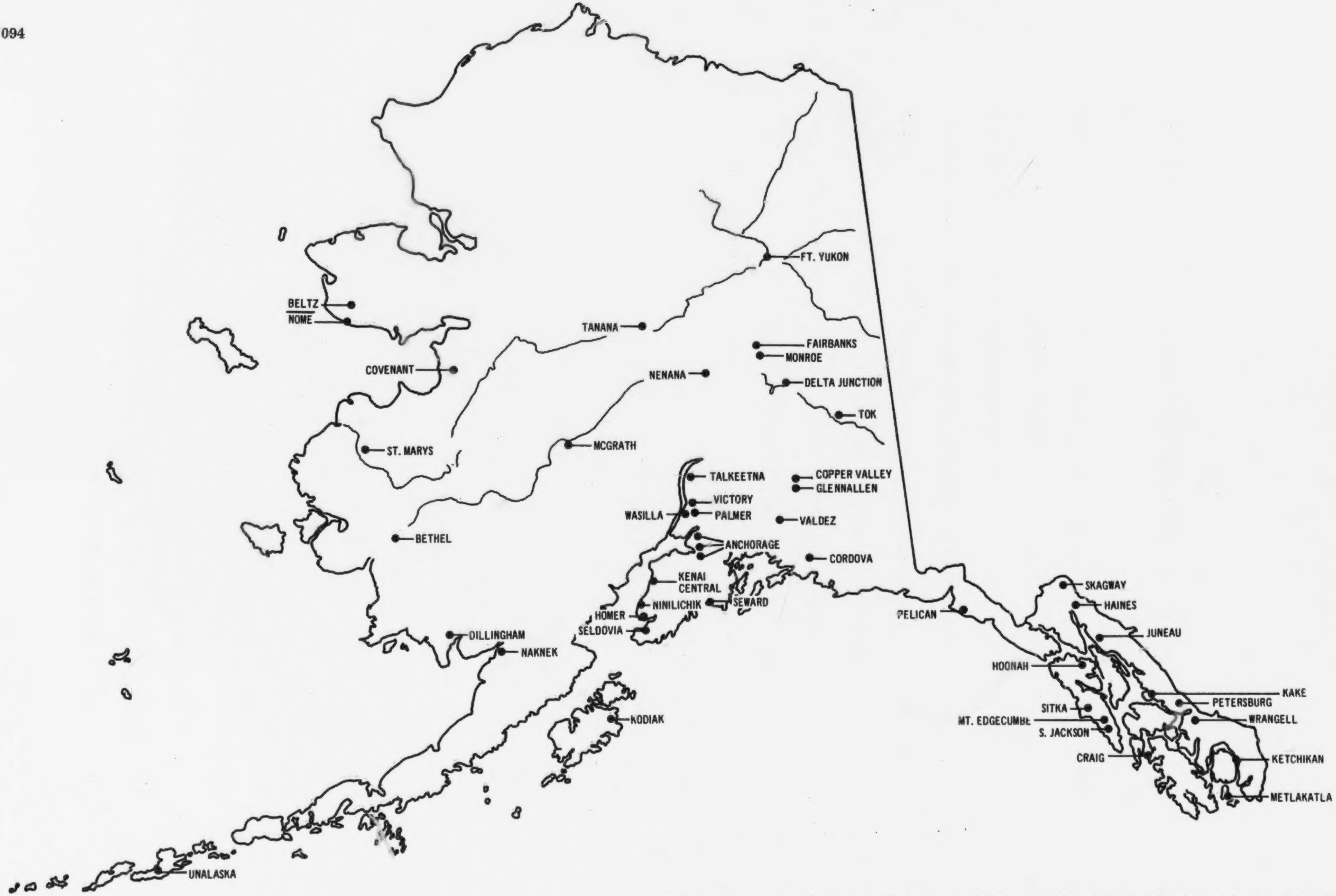
FT. YUKON
BELTZ
NOME
TANANA
FAIRBANKS
MONROE
COVENANT
NENANA
DELTA JUNCTION
TOK
ST. MARYS
MCGRATH
TALKEETNA
COPPER VALLEY
GLENNALLEN
VICTORY
WASILLA
PALMER
VALDEZ
BETHEL
ANCHORAGE
CORDOVA
KENAI CENTRAL
SKAGWAY
NINILICHIK
SEWARD
HAINES
HOMER
PELICAN
SELDOVIA
JUNEAU
DILLINGHAM
NAKNEK
HOONAH
KAKE
PETERSBURG
SITKA
MT. EDGECUMBE
WRANGELL
KODIAK
S. JACKSON
CRAIG
KETCHIKAN
METLAKATLA
UNALASKA

Figure I-1. State, District, BIA, Private, and Denominational High Schools in Alaska 1966-67

The building blocks for the regional high school system are therefore represented by the following schools:

Integrated - Comprehensive
(300+ students)

Anchorage
Fairbanks
Kenai
Ketchikan
Kodiak
Sitka
Palmer
Juneau

Native - Comprehensive
(300+ students)

Mt. Edgecombe

Integrated - Small
(200 or less students but
8 or more teachers)

Petersburg
Valdez
Wrangell
Cordova
Seward
Homer
Wasilla
Haines

Native - Small
(200 or less students but
8 or more teachers)

Metlakatla
Dillingham
Nome
Bethel
Beltz

All other Alaskan High Schools, BIA or public, have less than 8 teachers and less than 100 students. Expansion of these schools into a comprehensive regional boarding complex is not considered feasible.

Military base schools have not been considered in this report because of their specialized function.

1.3.2 Recommendations for Regional High School System

Within the educational objectives assumed, the current facilities available, and the anticipated growth in numbers of high school age

TABLE I-1

ALASKAN HIGH SCHOOLS 1966[1]

School	No. of Teachers	No. of Students
ANCHORAGE		
West	77	1714
East	74	1644
Dimond	41	529
Chugiak	18	216
FAIRBANKS-Lathrop	88	1798
JUNEAU-Douglas	49	871
MT. EDGECUMBE	40	669
KETCHIKAN	36	664
KODIAK	20	428
KENAI CENTRAL	23	401
SITKA	21	366
PALMER	23	315
PETERSBURG	16	196
SEWARD	14	188
BELTZ (NOME)	16	186
HOMER	16	169
NOME	15	136
WRANGELL	14	133
CORDOVA	9	131
WASILLA	12	122
BETHEL	12	100
VALDEZ	8	99
METLAKATLA	9	83
HAINES	10	78
DILLINGHAM	9	121 (7-12)
DELTA JUNCTION	3	73
SKAGWAY	6	70
GLENNALLEN	6	71
NENANA	7	63
HOONAH	7	61
KAKE	4	53
NINILICHIK	7	53
FT. YUKON	6	58 (7-12)
TALKEETNA	4	41
BRISTOL BAY (NAKNEK)	4	40 (7-12)
WASILLA, Y.C.	4	24
McGRATH	3	21
TOK	4	37
CRAIG	4	17
SELDOVIA	4	17

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1. Does not include on base schools or out-of-state schools.

ALASKAN HIGH SCHOOLS 1966 (cont'd)

Schools	No. of Teachers	No. of Students
TANANA	4	19
PELLICAN	1	3
UNALASKA	1	3
Private and Demoninational Schools		
BRISTOL BAY, ALEKNAGIK	1	15
CATHOLIC JR. HIGH SCHOOL, ANCHORAGE	3	100
COPPER VALLEY, GLENNALLEN	5	152
COVENANT, UNALAKLEET	2	55
MONROE, FAIRBANKS	4	127
ST. MARY'S, S.W.	4	111
SHELDON JACKSON, SITKA	2	63
VICTORY, PALMER	1	30
TOTAL SCHOOLS - 51	771	12,734

students,[1] TCA recommends initial development of six regional boarding high schools by 1975 (Phase I). If the population continues to grow at the projected rate, by 1980 eight additional secondary schools will become part of the regional school system (Phase II). A total of 14 Alaskan communities will be directly involved in this plan as shown in Figure I-2, page I-6. While some of these may not currently qualify as "urban areas", geographical location and anticipated growth favor their choice as school sites. The economic potential and urban quality of these areas will be enhanced by the development of these comprehensive educational facilities.[2] TCA recommends that a Center for Arctic Education and Research be established to develop solutions to the problems involved in cross-cultural education.

1.3.2.1 Center for Arctic Education and Research

Serious problems arise in separating rural students from their families and placing them in situations in which there is wide variance in language, cultural values, and socio-economic backgrounds. These problems will not be solved automatically as the regional high school system matures. Because solutions to these problems are basic to the success of a regional high school system, priority should be given to setting up a systematic, coordinated approach to adaptations for cross-cultural education and acculturation.

TCA recommends that a Center for Arctic Education and Research be established in Fairbanks to:

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[1] See section 2.1 for population projections.

[2] See section four for a description of the economic impact of regional secondary schools in rural areas.

1. Examine thoroughly the problems in cross-cultural education and acculturation.

2. Develop a model regional secondary school.

3. Develop a training program for teachers and the school personnel.

4. Disseminate innovative materials and methods for use in regional secondary schools across Alaska.

1.3.2.2 Recommended Regional Secondary School System Phase I (1967-1974)

To satisfy educational objectives suggested in Section 1.2, the secondary system must provide large, comprehensive, regional boarding schools within the state. The first phase of a development program will provide six regional (boarding) secondary schools[1] as follows:

1. A new regional boarding high school at Fairbanks, administered by the Center for Arctic Education and Research as a model regional high school, to provide the program, space, and teachers for approximately 1000 rural students from the Arctic and interior regions. TCA recommends that the Center and the North Star Borough School District establish procedures for exchanging students in the upper grades to permit integration of students with rural and urban backgrounds.

2. A new regional boarding high school at Bethel to serve the community of Bethel and the other villages of the Kuskokwim and Yukon Delta Region.

3. A new division in the Anchorage School District to provide the program, spaces and teachers for students from outside the district but

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[1] Note that these do not refer necessarily to new buildings but to curricula, organization, student and teacher composition, and administrative use as part of the state regional secondary school system.

within the South Central region, Cook Inlet and Prince William Sound. The Anchorage system will also serve students from the Southwest Region and the Aleutian Chain.

4. A merger of the Beltz school with the projected District School at Nome to provide a sound comprehensive high school to serve the students of the city of Nome, the Seward Peninsula and the Islands of the region.

5. The development of the Kodiak High School and State Vocational School into a comprehensive regional high school serving Kodiak Island Borough, the Alaska Peninsula, and the Aleutian Chain.

6. A merger of the Sitka Borough School District and Mt. Edgecombe School to provide a comprehensive high school program for Sitka students and students in the South East region that do not have a secondary school in their school district.

The potential enrollments in these schools by 1974-75 are shown in Table I-2, page I-8.

All of these schools will be within the standards for size and program set by Conant and others for a comprehensive high school.

Students from high schools with less than 300 students will be allowed to transfer to their State Regional Schools beginning with the 10th grade.

Each of the regional high schools will provide an ungraded orientation program of one to two years for incoming 9th grade students to allow them to adjust to urban life as well as to the tempo and academic demands of a comprehensive high school. For schools with 3-3 secondary schools, this orientation period will take place in the junior high school.

TABLE I-2

PROJECTED REGIONAL SCHOOLS BY 1974

School Site	Construction Requirement	Projected number of students by 1974 - grades 9-12[1]			
		Total	Local	Boarding Dorms	Boarding Homes
FAIRBANKS-COLLEGE	New School & dorms	1000		900[2]	100
BETHEL	New School & dorms	650	200	450	
ANCHORAGE	New school & dorms	3000[5]	2000	900[3]	100
BELTZ-NOME	Beltz addition & dorms	650	200	450	
KODIAK	Dorms	800	650	150	
SITKA-MT. EDGECUMBE	Mt. Edgecumbe addition and dorms	1000	500	450[4]	50
		7100	3550	3300	250

---

1. These schools may require more capacity (including dormitories) if it is decided to add a regional junior high to each school.
2. Operated and administered by Arctic Center for Education and Research.
3. Rural students would be placed in two urban high schools with a local student body of approximately 1,000 students each.
4. Additional students for whom normal regional system is not suitable will bring the total number of boarding students to 1,000.
5. The state would be responsible for constructing facilities for the 1,000 boarding students.

1.3.2.3 Recommended Regional Secondary School System Phase II (1975-1980)

All recommendations for Phase II are contingent upon adequate population to justify the establishment of a regional school. The population projections for Phase II do not take into account the fact that by 1980 many more communities may establish city or borough school districts. If this occurs, the total capacity required for a state regional secondary school system will be less than that projected below.

A new and improved secondary education without similar modernization and upgrading of the elementary school system will still leave many native students unable to compete successfully. An integral part of a long-range program will be the improvement of rural elementary schools.

As elementary schools improve in quality and expand in number to meet anticipated population growth rates (about 50% over a period of ten years) a number of regions will increase in size to a point at which additional comprehensive boarding regional junior high schools will be necessary to maintain the quality of education desired. The regional junior high school must have at least 150 students and 10 teachers to provide a comprehensive program for both terminal students and college-bound students.

In the period 1975-1980, the following eight schools, surrounded by a largely rural population, will be able to support a three-grade, boarding, regional junior high school with more than 150 students.

(The population of surrounding villages with 1-4 teacher schools will exceed 2000).

Southeast = Metlakatla
= Haines
South Central = Glennallen
Northwest = Kotzebue
Northeast = Fort Yukon
(Interior) = Tanana
= Delta Junction
Southwest = Dillingham

By 1980, the regional junior high schools at Kotzebue and Dillingham will be graduating sufficient students from 9th grade to warrant their expansion to full six-year Junior-Senior High Schools.

At the end of Phase II, the state of Alaska will have a regional secondary school system (as well as remaining BIA, urban city, and Borough Schools) as shown in Figure I-2. In addition to the six secondary schools developed in Phase I, this will include:

1. Kotzebue Regional High School to serve the communities North of Seward Peninsula.

2. Dillingham Regional High School to serve the population of the Bristol Bay Region and relieve the load on Bethel.

3. Metlakatla Regional Junior High to provide a closer-to-home boarding school for the southern part of the Southeast Region.

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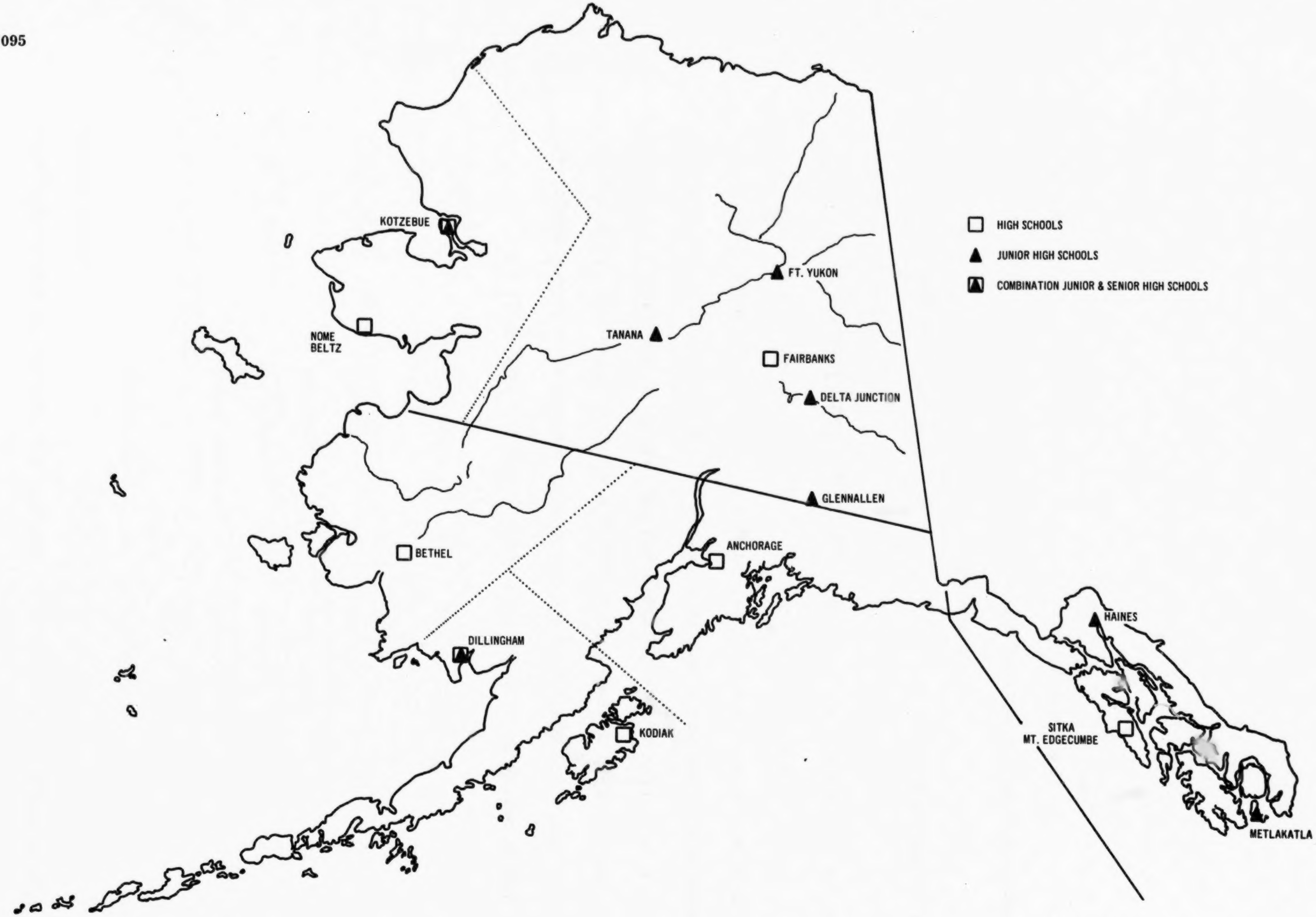
HIGH SCHOOLS
JUNIOR HIGH SCHOOLS
COMBINATION JUNIOR & SENIOR HIGH SCHOOLS
KOTZEBUE
NOME
BELTZ
TANANA
FT. YUKON
FAIRBANKS
DELTA JUNCTION
GLENNALLEN
ANCHORAGE
BETHEL
DILLINGHAM
KODIAK
HAINES
SITKA
MT. EDGECUMBE
METLAKATLA

Figure I-2. Recommended Regional Secondary Schools

4. Haines Regional Junior High to provide a closer-to-home boarding school for the northern part of the Southeast Region.

5. Glennallen Regional Junior High to provide a boarding Junior High for the Central region in the Glennallen service area.

6. Fort Yukon Regional Junior High to provide a boarding Junior High School for students in the Yukon area.

7. Tanana Regional Junior High to provide a boarding Junior High School for students in the Tanana area.

8. Delta Junction Regional Junior High to provide a boarding Junior High School for students in the Delta Junction area.

By 1980, data will be available on the progress of students in the six major boarding sites of Phase One. At that time the Center for Arctic Education and Research should provide research data to support expansion of the boarding system in the major urban areas or to more of the smaller towns of Alaska. The economic future of Alaska should be clear at that time also. Given a ten-year analysis of Alaska's potential and progress and a ten-year analysis of the relative values of different types of secondary education (i.e. integrated, segregated, urban, rural, small school, large comprehensive school, etc.); future educational decisions can be made more easily.

Until that time, the proposed system will provide good educational opportunities for all Alaskan youth, a variety of programs and institutions, and a research and evaluation capability to provide information and expertise for further progress in education.

This is provided through a system based upon the present educational facilities, regional needs and potential, and derived population estimates. TCA has recommended this system with cost effectiveness as the key criteria. The recommended school system will provide services and stimulation to a number of cities and regions while preserving the opportunity for effective education for every student. The system is flexible and adaptive to changes in population or capability.

PART TWO

IMPLEMENTATION PLAN

2.1 Introduction and General Plan

Implementation of the Plan requires that Alaskans genuinely support the objective of 90% of Alaskan high school age youth in high school. It will require a number of years and some effort to take these young people through the elementary system and into the secondary system. Improved quality of education in the rural areas will increase the number of qualified high school students. The opportunity to attend high school within Alaska, and within the students own geographic region will improve the motivation of 7th and 8th graders as well as the high school students themselves. Improved programs for rural students will reduce the number of dropouts from the urban high schools. The magnitude of the problem will become clearer as the programs are implemented. Uncertainty as to the exact numbers of students moving into the regional system requires that the building program be spaced over the seven year period of phase one to satisfy the demand for space as it appears.

2.1.1 The Need for Schools

The shortage of space for high school students within Alaska's schools is difficult to evaluate. It is clear that there are 915 students attending BIA secondary schools out of the state. The number of students desiring high school education and not being served is conjectural. TCA assumes this number to be 100 to 200. Of the 1300 native students now attending urban high schools, TCA assumes approximately 300 (25%) are not regular residents of the community. These students will benefit from an organized and adapted program and formalized boarding arrangements in the regional schools. These figures indicate a current need for 1315 to 1415 places for secondary students within the state.

The probability of a higher percentage of high school age youth attending high school when programs are improved and made more available must be considered. The 1960 census showed only 34% of Alaskan high school age youth in high school. Many of the remaining 66% were still in elementary school. A 1966 survey of state and BIA rural schools indicated the following percentages of students not attending any school.[1]

Age	% of age out of school
13	1
14	2
15	3
16	6
17	11
18	24

We can assume approximately 11% of 15 to 18 year olds were not in school. In 1965, that figure was approximately 450 students.

From these figures we know that there are upward of 500 children not in any school. Another 3500 children are either not in any school or are still in elementary school. As availability of schools increase and programs improve, a large segment of these 4000 students will be ready for secondary education.

Normal population increase will further increase the gap between space available and students ready for a secondary education. Table II-1 shows the population figures and projections that TCA has derived to indicate school and dormitory requirements until 1974. Table II-2 provides a timetable of construction completed to satisfy population growth.

Immediate construction and planning should begin to provide for the 900 Alaskans attending school out of state. This plus normal increases in high school attendance projected from current enrollment, define the immediate need.

---

[1] The Governor's Committee on Education, An Overall Education Plan for Rural Alaska. Revised 1966.

PROJECTED STUDENT POPULATION - Table II-1

		1966	1970 (1966 number + 12%)	1975 1970 number + 35%)	1980 1975 number + 20%)	2000 1980 number + 80%)
MINIMUM BOARDING NEEDS (Current in-state and out-of-state + 450 students either unplaced or poorly placed).		2236	2504	3380	4056	7300
MAXIMUM BOARDING NEEDS (High school age rural population)		4240	4749	6411	7693	13,847
PROJECTED PROBABLE NEED (Gradual upgrading of Native education level and incentives to high school)		2236	2630	3986	5510	11,230
REGIONAL REQUIREMENTS						
INTERIOR AND NORTHWEST (33%) (includes Fairbanks and Nome Schools)	Minimum	746	835	1127	1352	2433
	Probable	746	877	1329	1837	3742
SOUTHWEST AND SOUTH CENTRAL (47%) (includes Anchorage, Bethel and Kodiak schools)	Minimum	1043	1161	1577	1893	3407
	Probable	1043	1227	1860	2573	5241
SOUTHEAST (20%) (Sitka/Mt. Edgecumbe)	Minimum	447	508	676	811	1460
	Probable	447	526	797	1100	2246

PHASE ONE IMPLEMENTATION TIMETABLE - Table II-2

SITE	1965-67	1968	1969	1970	1971	1972	1973	1974
FAIRBANKS								
Center		**						
School				500[1]		500		
Dormitories				450		300		150
BETHEL								
School				600				50
Dormitories				450				
ANCHORAGE								
School						500	500	
Dormitories				300			300	300
BELTZ/NOME								
School	(Current) 150			350				150
Dormitories	150			150				150
KODIAK								
School								
Dormitories			150					
SITKA/MT. EDGECUMBE								
School	(Current) 700				500[2](-500)			
Dormitories	650				300		(-150)[3]	
TOTALS:								
School	(Current) /850	/850	/850	1450/2300	/2300	1000/3300	500/3800	200/4000
Dormitories	(Current) /800	/800	150/950	1350/2300	300/2600	300/2900	150/3050	600/3650

---

1. All numbers refer to completion dates
2. Local Sitka students will begin using facility
3. 150 beds of old facility will be removed

** Site completed

1. For 1967-68, Alaska needs school and housing for approximately 1200 additional high school students.

2. For 1970-71, Alaska needs schools and housing for approximately 1800 additional high school students, over current capacity.

3. By 1974-75, Alaska should plan on a total boarding student body of 3400 to 4000. Of this total, only 800 boarding places are now available at Mt. Edgecumbe at Sitka, and Beltz School in Nome.

2.1.2 The Need for Housing

There will be a need for boarding homes or state leased boarding houses in 1967-68, 1968-69, and 1969-70. By 1970, the dormitories will begin to reduce that need.

The State Welfare Department must begin immediately to find home placements for the best students in the major cities of Alaska. Major emphasis should be placed on Fairbanks and Anchorage since they will be large regional high school sites. Placements for the Southeast should be made in the three major cities of the region - Juneau, Sitka, and Ketchikan. The Welfare Department should work closely with the State Department of Education and the BIA in establishing criteria for homes and in placing students. The goal for 1967-68 should be a minimum of 400 boarding homes.

The State Department of Education must lease housing facilities (hotels, homes, boarding houses, etc.) for 500 or more students in 1967-68 and 600 students in 1968-69 and 1969-70. Provision should be made: 1) in Nome for 50 additional students; 2) in Kodiak for 50 students; and 3) the remaining 300 or more in Anchorage and Fairbanks. The operation of these boarding facilities should be supervised by the state (or contracted by the state). This requires the hiring, training, and supervising of resident counsellors for all facilities. The programs in these boarding units should approximate, wherever possible, the programs planned for regular boarding dormitories. The BIA operation is a reasonable model for the state to follow. The State Department should contract with the BIA or other organizations to organize and operate this dormitory program.

Until the regional boarding system is in full operation, the state must continue to use Chemawa School in Oregon for overage high school students and for those who are not adaptable to the "off campus" living arrangements necessary until 1971-1974. The Chemawa program is a fine one. It provides good education and a stimulating environment to the students attending the school. Approximately 400 students will be left without facilities in the state in 1967-68.

2.1.3 Elementary and Special Programs

Dormitories and schools alone will not produce the educated citizens desired by the state. They are merely tools and facilities with which to provide educational programs suited to the developing needs of young Alaskans.

A program to improve the educational level of rural Alaskans requires a massive effort at the elementary level as well as secondary schools. Programs in the lower grades must be improved so that students are not two to three years behind by the 8th grade (and this is on top of a repeating of grades and a large dropout rate during the 6-8 grades.)

Preschool, or Headstart, programs are essential to break the language barrier of entering native children. Teacher aides and technical devices could be used to provide supplementary instruction and adaptivc programs, even in two and three room schools.

Special programs for grades seven and eight are required to improve motivation and provide special help so that children will stay in school and qualify to go on to the high schools. The compulsory attendance law is only effective until the student is 16. The State Department of Education might consider eventually extending this age to 18. For the student having difficulty, the opportunity to leave school and the uncertainties of a difficult and strange new situation come at the same time. Unless the child is prepared and motivated, his schooling will be ended.

The BIA has developed a good program of adaptive education and has demonstrated special sensitivity to the needs of the "rural area" students. Until the regional schools can train staff and adapt programs, the immersion of rural area students into their programs should be controlled and gradual. The goal of the program is to increase the number of educated Alaskans, not to run a large number of rural area students in and out of an urban school program.

2.1.4 Construction Priorities

The priorities for construction are dictated partly by pre-existing conditions and partly by the needs.

1. Work should begin immediately to establish the Research Center and Demonstration School in Fairbanks. This center will be the major force in improving the opportunities for education of Alaska's rural population.

2. A dormitory at Kodiak is needed to make possible use of the State Vocational facility constructed at Kodiak in 1966-67. One hundred and fifty students will be housed in this facility.

3. In Fairbanks, dormitories for 450 students and the first half of the high school (500 students) will be constructed.

4. In Bethel, dormitories for 450 students and a school for 500 students will be constructed.

5. In Nome, an additional dormitory for 150 students and a school addition for 350 students must be built to bring Beltz school up to adequate size for a comprehensive high school.

6. In Anchorage, dormitories for 300 students must be built.

The preceding six priorities are needed by 1970 to bring all students into the state.

7. At Sitka, dormitories for 300, and a high school addition for 500 students should be built at Mt. Edgecumbe.

8. In Fairbanks, dormitories for 300, and the second portion of the high school should be built (for 500 additional students)

9. In Anchorage, dormitories for 300, and the first part of a school (to serve 500 students) should be built.

Items 7 through 9 are needed by 1973.

The remaining items' (10-13) building schedule will depend upon a reevaluation of population growth and distribution to be carried out in 1971.

10. In Anchorage, dormitories for 300 and the second section of the high school (for an additional 500 students).

11. In Nome, dormitories for 150 and a school addition for 150 students.

12. In Fairbanks, a dormitory for 150 students.

13. In Bethel, a school addition for 50 students.

Upon completion of Phase I, Fairbanks and Anchorage will be the major school systems serving the rural population. Kodiak and Bethel will provide high schools for students from the Southwest and the Aleutian Chain, but a number of students from these areas will go to the major urban center at Anchorage.

The high school at Nome will have a similar function of serving the majority of students from the Northwest. Fairbanks will draw students from the Northwest as well as from the Interior.

At the completion of Phase II, a decision can be made concerning enlarging the schools at Kodiak, Bethel, and Nome. At that time, the choices will be for additional high schools, enlarging all regional schools, or concentrating in the two urban centers of Anchorage and Fairbanks. A similar decision may be made in the Southeast between enlarging Sitka/Mt. Edgecumbe and developing more diversified boarding facilities and schools.

2.2 Phase I Implementation

Figure II-1 presents the proposed schedule for school construction in Phase I. The paragraphs which follow provide guidelines for each projected school complex.

2.2.1 Center for Arctic Education and Research

Location: The Center will be located in Fairbanks on or near the University of Alaska campus.

Administration: Sponsored jointly by the State Department of Education and the University of Alaska through its College of Behavioral Sciences and Education, the Center would work in cooperation with the North Star Borough School District in Fairbanks.

Rationale:

The success or failure of a regional high school system will depend in large measure upon how the schools meet the problems involved in cross-cultural education. Because of the complexity of the problems, it should not be assumed that successful approaches to their solution will be developed naturally as the school system matures. A systematic, coordinated program is needed to examine the problems in cross-cultural education. A Center for Arctic Education and Research will provide, at a single location, a pool of expertise and resources from which to develop solutions to cross-cultural problems. In addition, such a Center will attract talented people and additional money for education to Alaska.

Functions:

The Centers function's will be:

1. To develop a model regional high school.
2. To examine the problems in cross-cultural education: curriculum

adaptations and teaching methods,dormitory environment and personnel training.

3. To develop materials and methods for regional high schools across Alaska.

4. To develop and operate training programs for teachers, teacher-aides, and dormitory personnel.

Staff:

In addition to an Executive Director and the Principal of the model school, the Center staff will include an expert in each of the following areas:

1. Curriculum, materials, and teaching methods.

2. Training programs for new and in-service teachers, teacher-aides, and dormitory personnel.

3. Counselling programs for cross-cultural adjustment.

4. Dormitory programs.

5. Services related to education: health, social services, etc.

6. Research and evaluation.

The staff member's job will be to develop innovations in his specialty, provide guidance for implementing innovations in the model school, evaluate their effectiveness, and disseminate material for use in other regional schools.

Funding:

1. Funds equal to the total amount necessary to build and staff such a Center are available from the U.S. Office of Education, Department of Health, Education, and Welfare, under Title III, "Supplementary Educational Centers and Services", Section 301, of the Elementary and Secondary Education Act of 1965, as amended, (PL 89-10; 89th Cong.; HR 2362; April 11, 1965).

2. Funds for educational research and training are available from the U.S. Office of Education; Department of HEW, under Title IV, Section 401, of the Elementary and Secondary Education Act of 1965, as amended, (PL 89-10; 89th Cong.; HR 2362; April 11, 1965).

3. The Ford Foundation, which has funded a similar project in Alaska, could be approached to expand its commitment to the solution of cross-cultural problems in education.

4. Once established, the Center could receive funds for specific projects from various federal agencies such as National Institutes of Health, National Institutes of Mental Health, National Science Foundation, as well as from private foundations.

Timetable:

1969 - Completion of Research Center including staff, office space, curriculum lab and 2 demonstration classrooms.

Cost:

	square feet
Offices and Materials laboratory	1400
2 demonstration classrooms	900
	2300
X $33.00/sq. ft.	X 33
	75,900
+ site acquisition improvement	24,100
	$100,000

2.2.2 Fairbanks

Location:

This regional school will be in Fairbanks, on a site accessible to the University. The school will serve the Interior and Arctic Slope regions, including Barrow.

Administration:

The school will be administered by the Center for Arctic Education and Research in consultation with the State Department of Education. The Principal of the school would have a staff appointment at the Center and be the liaison between the school staff and the staff of the Center.

Capacity:

There will be a classroom capacity in the school for 1000 students, and provision for 900 in dormitories and 100 in boarding homes.

Rationale:

Ten thousand Alaskan natives live in the Interior and Arctic Slope region. Fairbanks is the largest city in the region and the second largest city in Alaska, providing an urban integrated community and environment for boarding students.

The University of Alaska provides cultural and intellectual stimulation as well as supporting the research and evaluation components of the regional high school.

The existence of the boarding high school will contribute to the economic growth of Fairbanks both during the building phase and during actual operations. One thousand students from the outside rural areas living in Fairbanks will result in an expenditure (at $3500 per student) of $3,500,000 per year. The population will be increased by 50 or more teachers and their families as well as the service and maintenance support staff required to operate the school and dormitories (approximately 70 or more personnel).

Program:

A comprehensive curriculum (academic, pre-vocational, commercial and terminal) will provide quality education for the university-bound student and terminal education for both 10th grade dropout and the student who completes his education at high school graduation. Pre-vocational courses are necessary for the students bound for post high school technical training. The non-academic oriented programs must accommodate both the students who will remain in the urban areas and the ones who will return to the village.

Village oriented terminal vocational courses will include: teacher-aide training, food service training, medical aid training, and building, equipment and heating plant operation and maintenance. Each of these skills are needed in the villages with an elementary school.

Housing Facilities:

A complex of six dormitories housing 900 boarding students will be built adjacent to the high school. Each dormitory room will house three or four students. A gymnasium-recreation facility will accommodate both school and dormitory programs. (One hundred students will live in boarding homes in Fairbanks).

The dormitory program, while allowing a student privacy for studying and pursuing personal interests, will include opportunities for group recreation and cooperative projects, supervised training in housekeeping responsibilities, counselling services, and an organizational structure in which students will have a voice in shaping the dormitory program.

Timetable:

1970: completion of three dormitories for 450 students;
completion of school for first 500 students.

1972: completion of two dormitories for 300 students;
completion of school for remaining 500 students.

1974: completion of three cottage dormitories for 150 students.

Construction Costs:

a. School:

1) Construction:

113,000 sq. ft. at $33/sq. ft. = $3,729,000

2) Utilities, site acquisition and improvement = 300,000

Subtotal = $4,029,000

b. Staff housing (none,live in city of Fairbanks)

c. Dormitories:

1) Students(6 150-person dorms) 15,000 sq. ft. each at $33/sq. ft. = $2,970,000

2) Dorm staff at 2800 sq. ft. per dorm = 554,400

Subtotal = $3,524,400

Total = $7,553,400

2.2.3 Bethel (Kuskokwim and Yukon Delta)

Location:

The new regional school will be located in the community of Bethel near the present school. The school will serve the local community and all the villages of the Delta region.

Administration:

The school will be administered by the State Department of Education as is the present school in Bethel. When the community of Bethel is large enough to organize a school district, administration would be carried out cooperatively by the State Department of Education and the local district.

Capacity:

There will be classroom capacity for 650 students - 450 of these students will require dormitories, and 200 students will be local residents of Bethel.

Rationale:

There are 10,737 people living in the Southwest region. The population, the great majority of which is native, lives in rural areas. Population growth is rapid, and the region is economically depressed. The people of the Delta region need and have the right to a secondary school.

The town of Bethel and the region will benefit economically and socially from the construction and operation of a state facility (see Part Four). A secondary school will bring more than 30 professional people and their families into Bethel. Facilities and services necessary to attract and hold these professionals will benefit the whole community.

The additional cost of building and operating a school in Bethel can be justified by the economic and social benefit to the region and by the value of bringing education to the people of the region. TCA believes that the extremely low percentage of students from the area who go to high school can be substantially increased by the development of a regional educational facility.

It is recommended that the student body of the Bethel school be limited in size to 650 students until the effects of the school and other investments in the region can be assessed. It is further recommended that approximately 50% of the students from the Southwest region be transferred to the Anchorage secondary schools to allow a broader educational experience for those who will be going into higher education or vocations in urban areas.

Program:

The Bethel School will have a curriculum similar to, but more limited than, the programs at Fairbanks and Anchorage, because the more skilled and motivated students will be encouraged to transfer to the Anchorage school system.

For the technical-vocational student, the program at Bethel will include basic shop work and motor and construction skills, as well as introductory commercial courses. Advanced students will receive further training (11th and 12th grades) at Anchorage.

The academic offerings at Bethel will be more limited than at the Fairbanks or Anchorage schools. The curriculum should include: one or two foreign languages; three courses in mathematics; and two basic science laboratory courses as well as the usual offerings in social sciences and humanities. The exceptional or college-bound students will transfer to the Anchorage school for the last two years of high school.

The school facilities will be used during the summer months and weekends for short-term technical-vocational training and adult education programs.

Housing Facilities:

A complex of three dormitories, housing a total of 450 students will be built adjacent to the regional high school. The dormitory arrangement and program will be similar to those at Fairbanks and other communities.

Insufficient housing is available for staff in Bethel. Private contractors should find it profitable to build apartment units to house the 50 families who will be coming to Bethel to staff the school and dormitory programs.

Timetable:

1970: a) Completion of dormitories for 450 students including dining facilities for 500.

b) Completion of high school for 650 students.

1974: Completion of an addition to the high school for 50 additional students.

Construction Costs:

a. School:	
1) construction - 76,700 sq ft at $42/sq ft	= $3,221,400
2) utilities, site acquisition and improvement	= 300,000
b. Staff Housing (9,000 sq ft)	= 378,000
Subtotal	= $3,899,400
c. Dormitories:	
1) students(3 150-person dorms) 15,000 sq ft at $42/sq ft	= $1,890,000
2) dorm staff at 2800 sq ft per dorm	= 352,800
Subtotal	= $2,242,800
TOTAL	$6,142,200

2.2.4 Anchorage - South Central Region, Cook Inlet, and Prince William Sound.

The new regional high school in Anchorage will be an addition to the newly completed Dimond High School. (An alternative would be on the site of the anticipated fourth high school for Anchorage.) In either case, a cluster of dormitories will be built in proximity to the high school to provide a campus atmosphere and broad use of facilities.

The regional school at Anchorage would serve all students in the southeast, Aleutians, and south central region that are not served at Bethel and Kodiak and do not have an adequate high school available to them.

Administration:

The school will be administered by the Anchorage Borough School district and the State Department of Education. Anchorage school officials will be responsible for the administration of the school with the state cooperating in dormitory and other out-of-school activities.

Capacity:

There will be classroom capacity for 1000 students from the rural areas as well as 800 dormitory accommodations. Two hundred of the rural students will be placed in boarding homes in the community.

Rationale:

Anchorage is the largest urban area in the state. Students at Anchorage are exposed to and prepared for participation in modern industrial society. Its school system is of high quality and is flexible enough to adapt to a large number of rural students with special problems. Special programs and procedures developed to promote assimilation and adjustment of rural students will be beneficial to many students from the city school district.

The economic advantages to Anchorage are similar to those to Fairbanks. Anchorage, however, provides more to the rural students and to the state than it receives in economic benefits. Graduates of the Anchorage schools, whether they stay in the city to work, go on to higher education, or return to their villages, constitute a valuable resource to the state.

Program:

A comprehensive curriculum will provide the advanced programs for college bound and technical school students from the Bethel and Kodiak systems. Special ungraded programs must be available to entering students to aid their adjustment to urban life and larger schools. The availability of the commercial and industrial facilities of Anchorage will be used in orienting students to the world of occupations as well as for on-the-job training and work study programs for older students.

Housing Facilities:

A complex of six dormitories near one of the high schools, similar to those described for Fairbanks will be required.

Timetable:

1970: Completion of two dormitories for 300 students

1973: a) Completion of first addition to present high school addition for 500 students

b) Completion of two dormitories for 300 students.

1974: a) Completion of second addition to high school for 500 students or of new high school (providing total space for 1000 students);

b) Completion of two dormitories for 300 students.

Construction Costs:

a. School:	
1) construction 113,000 sq. ft. @ $30/sq ft	= $3,390,000
2) site acquisition and improvement	= 200,000
b. Staff Housing: (none, live in city of Anchorage)	
Subtotal	= $3,590,000
c. Dormitories	
1) Students (6 150-person) 15,000 sq. ft. @ $30/sq ft	= $2,700,000
2) Dorm Staff at 2800 sq ft per dorm	= 504,000
Subtotal	= $3,204,000
TOTAL	= $6,794,000

2.2.5 Beltz/Nome

Location:

This regional high school will be located adjacent to the present William E. Beltz School outside the present city limits of Nome. It is assumed that Nome will move the city limits and annex the area including the Beltz School.

The school will serve the Northwest regions and adjacent Islands. It will not serve Barrow which has been assigned to the Fairbanks region.

Administration:

The school will be administered by the Nome School District in cooperation with the State Department of Education. Dormitories will be operated by the state until the local district is prepared to take over their operation.

Capacity:

There will be classroom capacity for 650 students. Provisions will be made for 450 boarding students. The remaining 200 students will be residents of the city of Nome.

Rationale:

The Beltz/Nome school will serve a native population of 9,150 which currently does not have adequate secondary school facilities.

The student population of the city of Nome itself is not large enough to justify a comprehensive high school. However, the Beltz boarding school outside of Nome has inadequate facilities for a comprehensive school; it lacks sufficient classrooms, a gymnasium and an auditorium. Its cafeteria and vocational facilities, however, are adequate for a high school of 600-700 students. Therefore, a complete regional school plant and program serving the Nome/Beltz area will be built around the present facilities at the Beltz School.

The incorporation of a vocational facility into a comprehensive high school complex is in keeping with maximum utilization of facilities for the largest possible population.

The economic benefits that a 450 student boarding facility brings to Nome will be a great asset. The influx of professional staff, as well as students, will contribute to the continued development of Nome and Northwest Alaska. This school, like the one at Bethel, will contribute to the statewide development of Alaska.

Program:

The curriculum of the Nome/Beltz school will be comprehensive with an emphasis upon course work in the first two years (grades 9 and 10). Students who show promise of continuing their education in college would be encouraged to transfer to the regional school at Fairbanks for the 11th and 12th grades.

In addition to the regular high school program, the vocational facilities will be used for post high school courses, summer programs, short term job-training programs and other adult education programs.

Housing Facilities:

The dormitory complex, when completed, will consist of three dormitories for 450 students. The gymnasium and recreational facilities will be available to both the school and the boarding students. Since insufficient housing is available in Nome, at least fifty units of housing will be necessary for the staff of the school. Private contractors should find it profitable to construct appropriate units for this number. The professional, dormitory, and service employees and their families will increase the population of Nome by 200-300 people and represent a payroll of well over $1,000,000 per year.

Timetable:

1970: a) Completion of a dormitory for 150 students. Until that time, additional space should be leased from the downtown hotels.

b) Completion of the first classroom addition and the gymnasium facility (to house 350 students). This will allow transfer of the local Nome High School operation to the new site.

1974: a) Completion of the second dormitory for 150 students

b) Completion of the second classroom addition for 150 students.

Construction Costs:

a. School:	
1) construction 59,000 sq. ft. at $39/sq ft	= $2,301,000
2) site acquisition and improvement	= 150,000
b. Staff Housing: 9,000 sq. ft	= 351,000
Subtotal	= $2,802,000
c. Dormitories:	
1) Students (2 150-person) 15,000 sq. ft. each at $39/sq ft	= $1,170,000
2) Staff at 2800 sq ft per dorm	= 218,400
Subtotal	= $1,388,400
TOTAL	= $4,190,400

2.2.6 Kodiak

Location:

This regional high school will be located in the city of Kodiak, on Kodiak Island, adjacent to the present high school and vocational facility. The school will serve Kodiak Island and the Aleutian Chain. Bristol Bay students will have the option of attending the Kodiak School or the Anchorage School.

Administration:

The school will be administered by the Kodiak school board in co-operation with the State Department of Education. The state will operate the dormitory until the local school district is prepared to do so.

Capacity:

The high school will have a capacity for 600 students, the majority of whom will be local residents and students from the "on base" elementary school.

A boarding capacity for 150 students will be constructed during Phase I of the implementation program. The capacity could be increased to 300 students when population growth warrants.

Rationale:

Kodiak is closer geographically and culturally, to the Aleutian Chain than is Anchorage. Entry into the Kodiak schools will be less traumatic for rural students than entry into the larger urban school at Anchorage. The semi-urban school at Kodiak represents a "half-way" house for cultural adjustment and academic preparation. As such, it provides an opportunity for examining the effects of different degrees of dislocation and program adaptations.

A school at Kodiak, up-graded in size and program to provide better educational opportunities for the children of Kodiak Island and the Aleutian Chain, will provide economic and social as well as educational benefits to the area.

Program:

The curriculum will be similar to the academic program at the Nome school: comprehensive, with emphasis on the course work in grades 9 and 10. Students who show promise of entering college will be encouraged to transfer to the Anchorage schools for grades 11 and 12.

The vocational facilities allow for the development of technical and vocational training programs for the non-school age population when the regular school program does not require them. The dormitory facilities, when they are not in use by students, could house adults or older students from outside Kodiak engaged in short-term programs.

Housing Facilities:

A single dormitory for 150 students, including dining facilities for at least 300 students will be located adjacent to the school facility. Dormitory students will use the school gymnasium and recreation facilities.

Timetable:

1967: Completion of vocational school

1969: Completion of 150 student dormitory

1970: Completion of new high school by Kodiak Borough School District and establishment of a junior high school on old high school site.

Construction Costs:

a. School:	
1) construction (use planned facility)	
2) site acquisition	= $ 50,000
b. Dormitories:	
1) Students (1 150-person) 15,000 sq. ft. at $36/sq ft	= $540,000
2) Dorm staff at 2800 sq ft per dorm	= 100,800
TOTAL	$690,800

2.2.7 Sitka - Mt. Edgecumbe

Location:

The school will be located on Japonski Island between the new airfield and Mt. Edgecumbe school. The school will serve the students of the Southeast region who do not have an adequate high school available to them.

Administration:

The academic program of the high school will be administered by the Sitka school district in cooperation with the State Department of Education. The State Department of Education will operate the dormitories until the local district is prepared to operate them. The BIA will continue to operate the special education program until the state takes it over.

Capacity:

There will be classroom capacity for 1000 students, and provision of dormitories for 500 boarding students. In addition, there will be 500 local students.

Another 300-500 boarding students may be on the Island participating in special programs or adult education programs.

Rationale:

Sitka is centrally located to serve the needs of the rural population in the Southeast region. The Sitka community is accustomed to serving as a "boarding school community" since the BIA has operated the Mt. Edgecumbe facility there for a number of years.

The Sitka high school district will benefit from the additional students and staff and curriculum offerings that a regional high school system makes available.

The new airport on the Japonski Island will make the Island a more important part of the Sitka community. In addition, the establishment of the regional high school would expedite plans for the building of a bridge across the channel.

The availability of vocational and technical facilities and dormitories will encourage the expansion of Sitka onto the Island. Since Sitka is more in need of additional development than Juneau, the economic and social stimulus of a regional high school in Sitka/Mt. Edgecumbe will encourage statewide growth.

Program:

The curriculum must be comprehensive and adaptive to the needs of the rural students as well as those from Sitka. The program will be similar to those at Fairbanks and Anchorage.

Timetable:

1971: a) Completion of a high school to serve 1000 students. Present facilities will serve 500, new facilities for 500 students required.

b) Completion of dormitories for 300 more students.

1975: Completion of replacement of older dormitories for 300 additional students.

Construction Costs:

a. School		
1) Construction 56,000 sq. ft. at $33/sq ft	=	$1,848,000
2) Site acquisition (none required)		
b. Staff Housing 15,000 sq ft at $33/sq ft	=	495,000
Subtotal		$2,343,000
c. Dormitories		
1) Students (2 150-person) at 15,000 sq ft each	=	$ 990,000
2) Dorm staff at 2800 sq ft per dorm	=	184,800
Subtotal		$1,174,800
TOTAL		$3,517,800

2.3 Compensatory Programs for Phase I

2.3.1 Preconditions for Success

Many Alaskan native students may be expected to enter a regional high school with a sense of bewilderment, insecurity, low self-esteem, expectation of failure, and distrust of non-native school personnel. These attitudes, if unchanged, will result in low educational achievement and poor social adjustment.

The Coleman study (see Phase I, pp. 25-26) suggests that the most important factors in determining a child's achievement and adjustment are:

A. A child's belief in the responsivness of his environment.

Village life leaves much to be desired in the cultural life of the child. The limited range of experiences leaves the child in a state of cultural deprivation. The disadvantaged child from a small village will have no basis for assuming that his new environment will be responsive to his needs. One of the keys to success is the child's belief that his environment will respond positively to his efforts.

B. Exposure to students from different backgrounds.

It has been shown that, in general, as the educational aspirations and backgrounds of fellow students increase, the achievement of disadvantaged children increases. The social composition of the student body has been shown to be the second most important factor in educational achievement.

C. "Good" teachers.

The Coleman study shows that "good" teachers are more important to achievement than facilities or curriculum. It should be pointed out, however, that all of the school factors taken together - facilities, curriculum, and staff - show less influence on achievement than the two preceding factors.

The fundamental precondition for success, the Coleman study suggests, is a total environment which the student feels will meet his needs and respond positively to his efforts.

2.3.2 Adaptations in Teacher Training

An intensive training program of eight weeks should be required for new and in-service teachers, native teacher-aides, and dormitory personnel. The emphasis should be on problems in cross-cultural education.

The training program should be developed and operated by the Center for Arctic Education and Research. The content of the training program, adapted for each of the personnel categories, should include:

A. Formal instruction in:

(1) Alaskan native history with emphasis on the cultural values of native groups and problems of acculturation.

(2) Teaching methods and materials adaptations for native Alaskan students, i.e., new techniques and equipment for teaching English skills, math, and physical sciences.

(3) Roles, methods, and techniques for teacher-aides.

(4) Roles, methods, and techniques for dormitory personnel.

B. Field experience in which trainees are sent to school districts in which they will be teaching to explore the nature of their working situation and their relationship to the community.

C. Small-group examination and testing of concepts learned in courses and impressions acquired from field experience by role-playing, self-analysis, and group dynamics methods.

2.3.3 Adaptations in Dormitory Programs

Housing accommodations should include private home placements, small group living, and dormitories. Incoming 9th graders would enter the dormitory for their first year. There should be no more than four students per dormitory room, and no more than 50 students per dormitory.

The dormitory program should include, in addition to opportunities for privacy and for pursuing personal interests, supervised training in housekeeping responsibilities, social programs, counselling programs, and an organizational structure through which students may participate in the operation of the dormitory, and in planning and evaluation of dormitory activities.

2.3.4 Adaptations in Curriculum

1. The general curriculum should include a core of studies in general education with additional courses designed for vocational and college preparation.

2. Special entry programs should be instituted for the 9th and 10th grade students who are not prepared academically or psychologically to enter the urban integrated comprehensive school. These may be separate 9-10 schools or special programs in a 9-12 high school.

3. Non-graded programs should be instituted by which a student moves to graduation as his individual learning allows.

4. Teaching materials and methods should be adapted for native students; textbooks should depict aspects of native life; new techniques and modern educational equipment should be introduced for teaching English as a second language, math, and physical sciences.

5. Examination of cross-cultural problems should be made an integral part of the school curriculum.

2.3.5 Adaptations in Counselling

1. The burden for cross-cultural adjustment should fall upon the counselling program.

2. Because the problems of cross-cultural adjustment have a determinative effect on educational achievement, a program for their solution should be given status and coordination as an integral part of the school curriculum.

3. Group discussion methods are the best vehicle for examining different values represented in the student body, seeing how those values result in different actions and attitudes, and judging the consequences of alternative actions and attitudes. It is suggested that students be assigned

to small groups which meet regularly during school hours to study Alaskan native history and problems in the acculturation process.

4. Teachers and other staff personnel, who will have participated in substantially the same process in their special training program for teaching in a cross-cultural situation (see p.II-26), should lead these groups.

5. The counselling program should also include specialized functions in individual-problem counselling, vocational and career guidance, and counselling for dormitory life.

6. The total counselling program should be organized and coordinated by a Director of Counselling to insure its integrity.

The development of the programs discussed above would be the initial responsibility of the Center for Arctic Education and Research.

2.4 Phase II - Implementation

The building plans for Phase One are sufficient, only, to satisfy a projection of present high school boarding populations. If the quality of education is improved in both elementary and secondary schools by 1975-80, the needs for regional schools will be much higher.

The time-table for development of regional boarding junior high schools at the sites mentioned in Part One is tied to population figures rather than calendar years. The criteria of a "feeder" population of 2000 persons will provide 150 to 200 junior high school age students at each potential site. It is TCA's belief that all the areas listed will be of sufficient size by 1980 to justify construction of boarding facilities.

The development of these schools calls for construction of dormitories for 100 students and a school plant for 150-200 students. This would be followed by the addition of a fifty student dormitory within two years. TCA anticipates that Kotzebue and Dillingham will serve a sufficiently large population by 1980 to establish regional high schools (6000 persons in service area).

The junior high school curriculum would not require the breadth or depth of a high school curriculum. Pre-vocational training would include one course in typing and one course in wood and/or metal shop. Emphasis in the junior high school should be on reading and mathematical reasoning. These are the two areas where students from small rural schools show the lowest achievement scores.

A program of study centered upon native history and values and their conflicts with urban values provide a focus for the cultural adjustment activities of the boarding school. The dormitory counselling and extra-curricular programs of a boarding school provide the enrichment necessary for the previously parochial rural student.

PART THREE

COSTS AND FUNDING

3.1 Cost Calculations

This section summarizes the estimated costs of construction and operation of schools, dormitories and supporting services described in Part Two of the report.

All cost figures are based on 1966 prices. However, a 1% to 2% per year increase in cost index might be anticipated since this has been the pattern in previous years.

Construction figures were based on the following assumed costs per square foot:

	Dollars
Fairbanks -	33
Bethel -	42
Anchorage -	30
Nome -	39
Kodiak -	36
Sitka -	33

Standards for construction costs and cost indices have been derived from data provided by TCA's facilities department[1], the State Department of Education and the BIA. TCA's guidelines are contained in the Appendix.

Data on the cost of school operation and dormitory operation are derived from State Department of Education and BIA operating costs for Beltz School at Nome, Mt. Edgecumbe at Sitka, and the projected BIA high schools at Barrow and Kotzebue.

Part two, section 2.2 gives the construction cost breakdowns on each site. This data is summarized in Table III·1.

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[1] The Facilities Center completed an intensive analysis of Alaska's building requirements and costs in 1966 in the preparation of a proposal for a Job Corps Center to be established at Fairbanks.

BUILDING COSTS - Table III-1

	YEAR	ANCHORAGE	ARCTIC CTR	BETHEL	FAIRBANKS	KODIAK	NOME/BELTZ	SITKA	TOTAL
Schools	1969		100,000	1,650,000	1,000,000		900,000		3,650,000
(Land acquisition	1970			1,650,000	1,000,000		900,000	924,000	4,474,000
& construction)	1971	1,230,000			1,000,000			924,000	3,154,000
	1972	1,230,000			1,029,000				2,259,000
	1973	1,130,000		110,000			325,000		1,565,000
	1974			111,400			326,000		437,400
TOTAL		3,590,000	100,000	3,521,400	4,029,000		2,451,000	1,848,000	15,539,400
Student Dorms	1969	450,000		945,000	800,000	590,000	293,000		3,078,000
	1970	450,000		945,000	800,000		292,000	495,000	2,982,000
	1971				450,000			495,000	945,000
	1972	600,000			450,000				1,050,000
	1973	600,000			235,000		293,000		1,128,000
	1974	600,000			235,000		292,000		1,097,000
TOTAL		2,700,000		1,890,000	2,970,000	590,000	1,170,000	990,000	10,310,000
Teacher Housing	1969	None,		189,000	None,		130,000		319,000
	1970	live		189,000	live		130,000	250,000	569,000
	1971	in			in			245,000	245,000
	1972	Anchor-			Fair-				
	1973	age			banks		45,500		45,500
	1974						45,500		45,500
TOTAL				378,000			351,000	495,000	1,224,000
Dormitory mgmt	1969	85,000		176,400	135,000	100,800	54,600		551,800
Housing	1970	85,000		176,400	135,000		54,600	92,400	543,400
	1971				97,200			92,400	189,600
	1972	111,000			97,200				208,200
	1973	111,000			45,000		54,600		210,600
	1974	112,000			45,000		54,600		211,600
TOTAL		504,000		352,800	554,400	100,800	218,400	184,800	1,915,200
Totals	1969	535,000	100,000	2,960,400	1,935,000	690,800	1,377,600		7,598,800
	1970	535,000		2,960,400	1,935,000		1,376,600	1,761,400	8,568,400
	1971	1,230,000			1,547,200			1,756,400	4,533,600
	1972	1,941,000			1,576,200				3,517,200
	1973	1,841,000		110,000	280,000		718,100		2,949,100
	1974	712,000		111,400	280,000		718,100		1,821,500
GRAND TOTALS:		6,794,000	100,000	6,142,200	7,553,400	690,800	4,190,400	3,517,800	28,988,600

All cost figures have been based on concrete block construction. A possible source of immediate saving lies in using prefabricated structures. The initial cost is approximately 60% of concrete block, although when replacement costs are considered, it may be more costly than concrete block[1].

TCA advises that prior to beginning any construction, a feasibility study be undertaken by a qualified engineer, to confirm the type of construction required, land available for construction, problems concerning shipment and receiving of building materials, availability of a water supply, and other variables which could delay the project.

3.2 Expected Implementation Costs - Phase I

3.2.1 Operating Costs

Table III-2 shows annual operating costs per student at each of the six regional high school sites. The educational costs range from $850 at Anchorage to $1400 at Bethel. Boarding costs range from $1350 at Anchorage to $2600 at Bethel. Total student costs range from $2200 at Anchorage to $4000 at Bethel. The median cost of education in the boarding schools is $3000 per year. The mean operating cost per dormitory student is $2860 per year. Average educational costs will be $1190 and boarding costs $1670 per student per year.

Table III-3 shows the annual operating costs for each recommended school and a total operating cost for the system. These figures are based upon enrollments at the completion of Phase One

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[1] One advantage of the prefabricated structure, lies in its replacement after 15 to 20 years. This requirement allows for improvement

(continued on page 6)

TABLE III-2

ANNUAL OPERATING COSTS PER STUDENT - SCHOOLS AND DORMITORIES

School and Dorm Site	Assumed Annual Operating Costs/Student (Dollars) (Total Non-boarding Student Cost)	Boarding Costs	Total Boarding Student Costs
SITKA	$1000	$1500	$2500
ANCHORAGE	850	1350	2200
FAIRBANKS	1000	1600	2600
NOME/BELTZ	1300	2500	3800
BETHEL	1400	2600	4000
KODIAK	1200	2100	3300

TABLE III-3

TOTAL ANNUAL OPERATING COSTS
SCHOOLS AND DORMITORIES

School and Dorm Site	Boarding Capacity (Number of Students)	School Capacity (Number of Students)	Annual Operating Costs Dorms (Dollars)	Annual Operating Costs Schools (Dollars)
FAIRBANKS	900	1,000	$1,440,000	$1,000,000
BETHEL	450	650	1,170,000	910,000
NOME/BELTZ	450	650	1,125,000	845,000
ANCHORAGE	900	1,000	1,115,000	850,000
KODIAK	150	800	315,000	960,000
SITKA/EDGECUMBE	500	1,000	750,000	1,000,000
		Annual Total	$5,915,000	$5,565,000

in 1974. At that time, 3350 dormitory students will be enrolled in the system as well as a minimum of 400 students living in private homes. By 1974, yearly dormitory operations will cost $5,915,000 and school operations will cost $5,565,000. It should be noted that school operating costs include 650 local district students at Kodiak and 500 local district students at Sitka.

3.2.2 Construction Costs

Construction costs by type of facility, by site and by year are shown in Table III-1. The grand total of $28,988,600 by 1974 includes funds expended by the State of Alaska, the Bureau of Indian Affairs, local school districts, and other federal and foundation funds. Table III-4 shows the anticipated breakdown of construction and operating costs. The state's share is $11,089,400. In section 3.3, the allocation of costs among these different funding sources is discussed.

3.3 Sources of funding for the Phase One Program

3.3.1 Bond Issues

Tables III-5 and III-6 present suggested funding sources for the Phase I Program. The 1966 State Legislature authorized issuance and sale of $5 million in bonds to finance regional boarding schools[1]. Two million dollars of this sum was earmarked for Nome on a two to one matching basis. The estimated cost for Nome/Beltz is

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(cont) and modernization as well as flexibility and adjustment to population shifts and change in educational requirements. Prefabricated units are now being used in Juneau, Fairbanks and Bethel. The "Modulux" design is being used for elementary programs, special education, and a demonstration classroom.

[1] CSHB 441, amended, 1966; Laws of Alaska, Chapter No. 168.

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TABLE III-4

RECOMMENDATIONS FOR PHASE I COST SHARING

	CONSTRUCTION	ANNUAL OPERATION
LOCAL BOROUGH	$ 1,545,000	$1,545,000
STATE	$11,089,400	$3,020,000
BIA	$ 8,700,800	$4,475,000
FEDERAL	$ 7,653,400	$2,690,000
TOTAL:	$28,988,600	$11,730,000

TABLE III- 5

DORM AND SCHOOL CONSTRUCTION

FUNDING REQUIREMENTS

SITE	Local Tax Base	State	BIA	Other	Total
Research Center				100,000[1]	100,000
FAIRBANKS					
School		(4,029,000)[2]		4,029,000[1]	4,029,000
Dorms			(3,524,400)[2]	3,524,400	3,524,400
BETHEL					
School		3,899,400			3,899,400
Dorms			2,242,800		2,242,800
NOME/BELTZ					
School	802,000	2,000,000			2,802,000
Dorms			1,388,400		1,388,400
ANCHORAGE					
School		3,590,000			3,590,000
Dorms			3,204,000		3,204,000
KODIAK					
School					
Dorms			690,800		690,800
SITKA/EDGECUMBE					
School	743,000	1,600,000			2,343,000
Dorms			1,174,800		1,174,800
TOTALS:	1,545,000	11,089,400	8,700,800	7,653,400	28,988,600

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1. See Section 3.3.3, page III-11.
2. State and BIA responsibility if Federal funds are not available.

TABLE III-6

DORM AND SCHOOL OPERATION FUNDING REQUIREMENTS

SITE	Local Tax Base	State	BIA	Other	Total
Research Center				250,000	250,000
FAIRBANKS					
School		(1,000,000		1,000,000	1,000,000
Dorms			(1,440,000)	1,440,000	1,440,000
BETHEL					
School		910,000			910,000
Dorms			1,170,000		1,170,000
NOME/BELTZ					
School	260,000	585,000			845,000
Dorms			1,125,000		1,125,000
ANCHORAGE					
School		850,000			850,000
Dorms			1,115,000		1,115,000
KODIAK					
School	785,000	175,000			960,000
Dorms			315,000		315,000
SITKA/EDGECUMBE					
School	500,000	500,000			1,000,000
Dorms			750,000		750,000
TOTALS:	1,545,000	3,020,000	4,475,000	2,640,000	11,730,000

$2,802,000 approximately two million of which is the state's responsibility.

The remaining $3 million bonding authorization will cover the majority of the construction costs for the school at Bethel. Table III-1 shows expenditures of $3,300,000 in 1969-1970 for construction of a school for 600 students.

The Anchorage school, to be begun in 1971, will require a bond issue of $3,590,000 (plus cost increase adjustment). The dormitories should be funded by the B.I.A.

3.3.2 B.I.A. Financing

If we can assume B.I.A. financing for dormitory construction and operation, the remaining costs outstanding are for faculty housing. This is the only remaining cost not yet funded for the Nome and Bethel schools. The State Department of Education - B.I.A. agreement of 1966[1] indicated B.I.A willingness to finance construction, as well as operation, of dormitories and allied facilities for native children attending state regional boarding schools. The BIA and the State Department of Education must agree on an overall plan and specific sites and size of school. BIA support is likely since the 1966 BIA recommendation includes a boarding facility at Bethel and Nome as well as Fairbanks, Anchorage, Kodiak, and an addition at Mt. Edgecumbe. The timetable and size of dormitories differ from TCA's recommendations but basic construction needs are comparable.

Table III-5 shows a two to one state-local matching since the completed facility will serve 50% of the regional and 50% of the local students.

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[1] Appendix A, Page A-7.

The Sitka-Mt. Edgecumbe school construction remains a BIA responsibility until the facility is turned over to the state or the Sitka Borough.

The BIA could complete the construction before formal agreement of Sitka School District to enter into a cooperative use and administration of the Mt. Edgecumbe facility. This would reduce state construction costs (and bonding needs) by $1,600,000.

Dormitory facilities on Japonski Island remain a BIA responsibility in either case.

The dormitory at Kodiak will also be constructed by the BIA.

3.3.3 Federal Government Funding

The Arctic Education Research Center at Fairbanks must be supported totally by federal funds or a foundation grant. Detailed information on funding the center is in Part II, Section 2.2.1.

The Model School at Fairbanks is an integral part of the Research Center and should be treated as such in the proposal for funding. The concept of the center and school justify and explain this inclusion. A soundly prepared proposal for this model educational complex could bring a $7,653,400 educational facility to Alaska.

A program of this kind would receive its operational funds from the granting agency or foundation. The operation costs are shown in Table III-6. The combined center, school, and dormitory operation costs are $2,690,000 per year. The suggested sharing of costs for the entire Phase I program is presented in Table III-4.

3.3.4 Other Funding Alternatives

The development of special programs in any of the regional high schools presents the possibility for federal funding. Programs designed to meet special needs of disadvantaged youth, or Indian children, may be funded under Titles II, III, or IV of the Elementary and Secondary School Acts of 1965-66. The State Department and the concerned school districts should confer on possible programs to be requested. At that time, the State Department should develop a comprehensive proposal for the assimilation and education of Alaska's aboriginal population.

The Demonstration Cities program of the Department of Housing and Urban Development offers a unique opportunity for federal funding for planning and implementation of, not only a secondary school, but the complete urban area.

TCA recommends Bethel as the most logical city for inclusion in a "Demonstration Cities" program. The placing of a boarding high school in Bethel is part of a positive committment to aid the development of Bethel as an urbanized center to serve the Southwest Delta area and its citizens.

The Department of Housing and Urban Development has $11,000,000 available for city or region planning contracts. This is phase one of three phases.

The deadline for submission of an "analysis proposal" is 1 May 1967. At that time, contracts will be let to 70 to 100 cities. The planning grants will range from $200,000 to $500,000 for periods of six to twelve months. The reference for preparation of an "Analysis proposal" is:

Program Guide - Model Neighborhoods in Demonstration Cities - Improving the Quality of Urban Life, H.U.D., U.S Government Printing Office, 1967 0-242-411

A state-directed effort to win a planning grant for one or more of Alaska's regions should have a high priority for state planners.

Because of the complexity and size of the task ahead for the State Department of Education, special provisions should be made for addition of personnel and services.

TCA recommends a line item sum of $50,000.00 per year for the next five years. This sum would provide the funds necessary for planning, implementation and evaluation of the regional high school system. The fund should be used for a comprehensive study of elementary education for rural Alaskans. Emphasis should be on preschool and primary grade education.

When the Arctic Research Center is operative, it will take over much of this responsibility. Until that time, success of the Regional Secondary School Plan will be greatly enhanced by special funding of this type.

PART FOUR

THE ECONOMIC AND SOCIAL IMPACT OF REGIONAL SECONDARY SCHOOLS

The traditional view of schools as having primarily, if not exclusively, an educational impact is not entirely appropriate in the rural areas of Alaska where most of the native population lives. In addition to being a device for transmitting "academic" information, schools in the bush have historically had a profound effect on the economy, population distribution and size of Alaskan native villages. Other government facilities have similar locational impact.

George W. Rogers, a well known Alaskan economist, has pointed out that the overall Alaskan economy is largely "derivative", being dependent upon federal expenditures.[1] This is perhaps even more true of the small native villages scattered throughout the far reaches of Western Alaska where the bulk of native population is settled.

One of the key ecological developments in the native population since World War II, particularly among Eskimos, has been

> ...the tendency toward consolidation of the outlying, smaller communities and semi-nomadic bands into larger settlements, both Eskimo and mixed Eskimo and white. Until the war the Eskimos were scattered in two hundred or more small settlements, of which only 20 villages had more than 200 inhabitants in 1940....During the war many Eskimos

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[1] Rogers, George W. and Cooley, Richard A., Alaska's Population and Economy, Vol. I, Analysis, Institute of Business, Economic and Government Research, University of Alaska, College, Alaska, 1963, *passim*.

> went for jobs to urban centers--Fairbanks, Nome, Anchorage, or others--or military construction sites; and this trend has continued, both for job-seeking and for other reasons, such as health care.....Now the total number of settlements has decreased, and there has been an increase in the population of many though not all of the remaining ones.[1]

The opportunity for employment will thus "locate" elements of the native population. "Increasingly,...considerable numbers of Eskimos and Aleuts are moving into the urban areas of Alaska."[2] Although it was during the war years that the tendency of the native population to cluster in larger villages became clearly pronounced, there is evidence to indicate that concentration of population was occurring before World War II, however, not merely or exclusively in response to employment:

> ...concentration of population in Northern Alaska, while having begun some decades prior to the 1940's, was further greatly increased in the last 15 years by the impetus of military activity along the Alaskan coast...This reason, along with the others mentioned by Spencer--larger villages as locations of schools, churches, medical facilities--also tended to operate farther south along the coast, as well as inland in many areas of Eskimo settlement.[3]

Thus, coming into play in addition to straight-forward employment factors such as military construction, are considerations of key public facilities such as schools, churches, and medical facilities which by virtue of simply existing in a particular physical location tend to attract native population. Substantial long-term changes in the distribution of population are the result.

[1] Hughes, C.C., "Under Four Flags: Recent Culture Changes Among Eskimos", Current Anthropology, Vol.6, No.1, p.30, February, 1965.
[2] Ibid.
[3] Ibid.

The development of the village of Barrow is a rather spectacular case in point. The Barrow Community Development Study, in discussing reasons for Barrow's population explosion comments:

> "Barrow has grown large at the expense of the population (now almost gone) of the surrounding area. People were drawn there by the prospect of jobs, stores, movies, schools, medical services, and other attractions of modern life...Barrow depends largely upon government services and government employment for its cash income.[1]

Though initially the impetus for migration to Barrow depended on the availability of high-paying jobs, it soon became apparent that a "feedback" mechanism was operating which further attracted population and caused it to cluster in Barrow. The presence of jobs and salaries made it possible for natives, heretofore outside the cash economy, to become consumers of goods and services. As more people in-migrated to Barrow more stores, restaurants, etc., sprang up to satisfy the demand. "Bright lights" thus appeared to exert a powerful influence on the direction of native migration. With the increase in the population the Native Public Health Service found it necessary to expand facilities as did the Bureau of Indian Affairs. A circular effect was created. The greater the population, the greater the necessity of expanding schools and hospital facilities; and the greater the population the larger became the private sector of the economy which provided material benefits and entertainment.[2] In

[1] Rice, E.F., Saroff, J. Ronald, and Fuller, William D., The Barrow Community Development Study, University of Alaska, March, 1964, p.2. The population of Barrow has tripled in the past 25 years, and is now estimated at 1500.

[2] Rice, E.F., Saroff, J. Ronald, and Fuller, William D., The Barrow Community Development Study, University of Alaska, March, 1964.

the case of Barrow, there is little doubt that the location of public services and facilities such as schools and hospitals helped sustain the growth given original impetus by construction jobs.

4.1 Native Attitudes Toward Schools & Health Facilities

The Alaskan native partakes largely of the general American attitude that education is necessary, desirable, and good in and of itself. "Despite the frequent interruption in schooling occasioned by hunting, fishing, or trapping activities of their families, there is no question of the desire on the part of Eskimo children to receive an education."[1] The high priority given to education by Alaskan natives and the high esteem in which it is held was indicated by Charles K. Ray, in his comprehensive study, A Program of Education for Alaskan Natives, which reports on the educational aspirations of the younger generation of natives. Their ideal is an education which will insure employment immediately after schooling is completed, with relatively high income, personal prestige and an assurance of continued employment.[2] Also indicated is a strong demand for a higher level of education, with at least some high school as a minimum.[3] Dissatisfaction exists, particularly in the Bethel area, with the lack of opportunity for a high school education and is applied particularly to Mt. Edgecumbe, the principal B.I.A. high school for Alaskan natives, which is geographically far removed from the bulk of native population.[4]

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[1] Hughes, Op. cit., p.37.

[2] Ray, Charles K., A Program of Education for Alaskan Natives, A Research Report, University of Alaska, College, Alaska, revised edition, 1959, passim.

[3] Ibid

[4] There is evidence that the older generation is not happy with the possibility of their children's leaving the village to go to school.

Thus, even though the opportunity to attend high school in other parts of the State (or country) may be available, the preference in many cases would appear to be a facility within the region of residence. It is necessary to emphasize the esteem with which the native population views education in order to emphasize the effect the location of a large regional high school of at least 500 pupils may have on native population movements, and hence on the native chances for economic well-being.

Traditionally, the school in America has been a multiple-use facility, providing a convenient meeting place, recreational area, and even a community center. If the school, however, is an important facility to middle class Americans, it is even more vital to the Alaskan Eskimo.

> In most Eskimo communities the school serves many functions. It is a hostel for visitors, a community center, often a meeting hall, recreational area, political forum, and medical clinic.[1]

The existence of a school, particularly one of the size of a large regional high school,[2] with the specialized facilities and advantages it could provide, would be viewed as a considerable community asset and therefore would doubtless influence the movement of native population.

The location in a community of a considerable number of teachers, who would by example of their own behavior provide leadership and instruction to the natives would be an attractive force additional to the physical plant of the school.

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[1] Hughes, Op. cit., p.37.

[2] A smaller high school would have a correspondingly lesser effect.

> The teacher himself is, often inadvertently, a community leader, although his effectiveness varies from one place to another.[1]

The possible expansion or improvement of health facilities as a consequence of the construction of a large regional high school and a subsequent population increase would in turn further tend to draw population into an area.

> Probably the single greatest community interest centers about diseases and their cures. Good health is a very real concern to everyone, and the greatest menace by far is tuberculosis.[2]

For example, there is now a tendency for outlying villagers to go to Bethel when ill. This tendency would doubtless be reinforced if additional and improved medical facilities were made available as would probably be the case if a regional high school were constructed.

4.2 Effect of Regional High Schools on the Native Population

We have seen the historical effects of the location of schools and medical facilities, as well as the opportunity for employment, on the native population. The impact has been profound, altering the very pattern of native living by tending to concentrate population. There is every indication that the location of a large regional high school in larger rural villages, would have a similar and perhaps even heightened effect. Bethel, as an example, is a service and trading center for the Yukon-Kuskokwim delta. It is strategically located on the banks of the

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[1] Hughes, Op. cit., p.37.

[2] Van Stone, J. W. and Oswalt, W. H., "Three Eskimo Communities", Anthropological Papers of the University of Alaska, University of Alaska, College, Alaska, Vol. 9, No.1, December 1960, p. 25.

Kuskokwim River and is presently the major location in the region of a number of federal facilities such as a Federal Aviation Agency station and State airport, a Public Health Service hospital, and both State and Bureau of Indian Affairs schools. Bethel, with an estimated population of 1,258 people,[1] is now the center of the regional trade area which is based on fishing, fur trapping, and seasonal wage employment, especially in the salmon canneries.[2] It thus starts from a position of relative strength. The location of a regional high school in Bethel would accelerate the movement of population to that city, which could be presently described as the "metropolis" of the Yukon-Kuskokwim.

The actual construction of a regional high school would probably result in the employment of a number of natives, many of whom have skills useful in such a project. Thus, an immediate economic impact, with the tendency to attract population, would be felt. After the construction of a regional high school there will be a need to employ custodial and maintenance personnel, most of whom could be drawn from the native population. Doubtless a cafeteria would be built into the regional high school. In addition to supplying a badly needed square meal to the children, and thus reinforcing their desire to come to school, a hot lunch program would necessarily employ a substantial number of cooks, food handlers, etc. If it is anticipated that appropriate skills are not available, M.D.T.A. programs or other training programs could be instituted to ensure that the local population were able to fill such positions.

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[1] Community Gazetteer of Alaska, including Geographic Coordinates and Latest Population Figures, Issued jointly by Office of the Governor, Department of Health & Welfare, Department of Labor, Alaska Legislative Council, 1965.

[2] Foote, Don Charles and MacBain, Sheila K., A Selected Regional Bibliography for Human Geographical Studies of the Native Populations In Central Alaska, Geography Department Publication No. 12, McGill University, Montreal, June 1964, p.11.

The addition of fifteen to twenty-five teachers, not including administrators and counselors, to a community the size of Bethel or Nome or even one the size of Kodiak, would probably mean direct population increase of up to one hundred people. There would thus be a direct beneficial effect on the economy of new residents able and willing to buy commodities and to expect services.

Another direct economic impact of the location of a large regional high school would be the increase in the number of consumers from outlying areas, particularly high school students, boarding in the community. Their wants and needs would doubtless increase business in the area.

There appears to be a tendency on the part of federal and state agencies to locate, if the functional demands of a particular operation permits, in centers of population simply because it is easier to thereby attract and retain personnel. It is probable that the location of a large regional high school facility would make it easier to retain federal and state employees in rural areas for longer periods of time than at present, because their children would have a full and complete range of high school facilities available and other services would be present. Almost by definition the larger the community and the more extensive the community facilities, the less of a hardship post it might be considered. There is thus reason to anti e that the location of a regional high school would have a not inconsiderable effect on locational decisions of other governmental agencies. An increase in government employment would, of course, be reflected in the economy of the area, providing the opportunity for more jobs. Thus, a spiral of economic growth would be started: the regional high school requiring teachers, and administrators, custodial assistance, and food handlers, the state and federal agencies having a tendency to enlarge or locate new facilities, and the "private" economy in the community expanding to meet the new population and increased demand, which would then make additional employment opportunities available. Though no particular time span or specific sequence of steps in such a procedure can be safely outlined, it is reasonable to expect such consequences to follow from the location of a regional high school. All other experience in Alaska points in such a direction.

4.3 The Social Impact

The change from life in a village such as Napaskiak,[1] with 140 residents to Bethel with 1,258 is substantial. The traditional extended family structure does not, in Bethel, encompass a large percentage of the total population, though it is still an important institution to individual families. Relationships, as in any "urban" area, tend to become more formal, more distant. There is evidence that acculturization from small village rural life can be accelerated by residence in cities.[2] Residence in urban areas appears to accelerate the breakdown of old village patterns, patterns which may retard the development of rural folk into a disciplined and reliable workforce. Though neither Bethel, nor areas such as Nome or Kodiak can be considered large urban areas, they are nonetheless a vast leap from the small, isolated, family-oriented community in which most Alaskan natives live. The larger towns such as Bethel are more accessible to the "outside world", the world to which the Alaskan Native must adjust and adapt. Though the movement of population from villages to towns does not occur without social dislocation, it appears that movement to the larger centers of population is one essential ingredient in the adjustment and acculturization of the Alaskan native, as well as for his economic well-being. The advantage of at least 500-student regional high schools in communities the size of Bethel or Kodiak is that the leap from small village is not as great as it might be if the shift were to Anchorage or Fairbanks. The social dislocation would not therefore be as severe as if the jump were in one step. Location of regional high schools in larger villages might act as a "half-way house", a gradual exposure to an urban social system. After several years in such an environment, students would be prepared to go to larger cities such as Fairbanks, Anchorage, etc.

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[1] Napaskiak: An Alaskan Eskimo Community, University of Arizona Press, Tucson, Arizona, 1963.

[2] Hoselitz, Berthold F., (ed.), The Progress of Underdeveloped Areas, University of Chicago Press, Chicago, 1952, passim.

The influx of population to Bethel or Nome or Kodiak would present the natives with the opportunity to come in contact with natives from other villages and areas as well as with middle class Americans. Acculturization involves change in the context of prolonged first-hand contact between different peoples.[1] Such an experience would be available in centers in which regional high schools might be located.

[1] Oswalt, W.H., Mission of Change in Alaska, The Huntington Library, San Marino, California, 1963, p.152.

There is evidence to indicate that Alaskan Eskimos are capable of major cultural change without accompanying disorganization.[1] It would thus appear that the changes that could be wrought by the location of large regional high schools, particularly in an area such as Bethel, would be relatively painless.

> ...anthropologists habitually have assumed that systematic change is extremely difficult to achieve without accompanying disorganization. However, it is beginning to appear that major institutional changes (in the Kuskokwim delta) can take place in harmony with an aboriginal way of life if the interested outsider first can assess the receptivity of the peoples involved and will introduce his changes only among those groups with high receptivity....[2]

In the instance of the location of a regional high school, it would appear that a high receptivity will exist.

4.4 Conclusion

Much of the native population in western Alaska is presently living in dispersed and isolated communities which do not offer opportunities for other than subsistence economy and a limited education. The traditional settlement pattern of the Alaskan natives does not offer them an opportunity to become integrated into either the Alaskan economy or majority culture. Continued residence in such communities offers little hope for a change in the existing situation.

However, if public facilities are located in areas of economic potential, particularly in the larger villages, the dispersed pattern of settlement can be altered. Public facilities and amenities do exert a powerful attraction and act as a magnet to which natives are drawn. A large regional high school would perform such a function, rendering not only educational benefits, but tangible economic and social benefits to Alaska as well.

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[1] Ibid., p. 160.
[2] Ibid., p. 163.

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PART V

SUMMARY RECOMMENDATIONS

Training Corporation of America recommends the following steps be taken immediately:

1. Alaska should implement Phase One of the Regional Secondary School Plan as described in Part Two of this report.

2. The legislature should allocate immediately $50,000 per year to the State Department of Education so that they may proceed with the approved plan.

3. Plans should begin immediately for obtaining funds for the Center for Arctic Research and Model School at Fairbanks.

4. Proposals should be prepared for obtaining an educational grant for intensive summer programs for training teachers and resident aides who will be working in the Regional Schools.

5. The State Department of Welfare should begin immediately to identify and contract boarding homes for 400 or more rural Alaskans coming to the urban schools in September 1967.

APPENDIX A

The following Alaskan population statistics, guidelines, and criteria are pertinent to understanding this report and the implementation of the Regional Secondary School Plan.

	Page
Projections of Alaska Native Population 1960-2000	A-I
Distribution of Total Alaska Population by Size of Place	A-2
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TCA's Estimating Guidelines for Facility Construction in Alaska	A-10

PROJECTIONS OF ALASKA NATIVE POPULATION 1960 - 2000

Year	Total Alaska	Southeast	Southcentral	Southwest	Interior	Northwest
High projection:						
(Total population)						
1970	62,500	13,200	6,900	22,800	6,700	12,900
1980	92,100	19,100	10,800	34,000	9,800	18,400
1990	133,900	27,200	16,700	49,700	14,300	26,000
2000	191,100	38,000	25,000	71,400	20,200	36,500
(Average annual rate of natural increase)						
1960-1970	37.9	37.5	22.7	47.6	37.4	32.4
1970-1980	39.5	37.6	45.8	40.8	38.7	36.1
1980-1990	38.1	36.0	44.5	38.7	38.5	36.8
1990-2000	36.1	34.0	41.2	38.7	36.4	34.5
Low projection:						
(Total population)						
1970	62,200	13,000	8,600	20,600	6,800	13,200
1980	86,100	17,500	12,700	27,700	9,600	18,600
1990	113,300	22,400	17,500	35,500	12,900	25,000
2000	141,500	27,300	22,400	43,300	16,500	32,000
(Average annual rate of natural increase)						
1960-1970	37.3	35.0	46.0	37.5	40.0	35.0
1970-1980	32.0	30.0	40.0	30.0	35.0	35.0
1980-1990	27.8	25.0	32.5	25.0	30.0	30.0
1990-2000	22.3	20.0	25.0	20.0	25.0	25.0

DISTRIBUTION OF TOTAL ALASKA POPULATION BY SIZE OF PLACE

1960

Size of Place	Number of Places	Population	Percent of Total Population
Places of less than 1,000	--	116,446	51.5
1,000-5,000	10	12,444	5.5
1,500-2,000	4	7,032	3.1
2,000-2,500	2	4,478	2.0
2,500-5,000	2	5,865	2.6
5,000-10,000	3	22,354	9.9
10,000-25,000	1	13,311	5.9
25,000 or more	1	44,237	19.6

Source: U.S. Bureau of Census, 1960 Census of Population, Alaska; Final Report PC(1) -3A, Pg. 3-7.

AGE AND SEX COMPOSITION OF ALASKA'S POPULATION
PERCENTAGE DISTRIBUTION
1960

	Southeast		Southcentral		Southwest		Interior		Northwest		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
Under 5	6.8	6.4	7.8	7.3	8.1	7.8	7.9	7.6	9.0	9.0	7.7	7.4
5-14	11.0	10.5	10.2	9.7	11.8	11.3	9.2	8.9	13.2	12.3	10.4	9.9
15-24	7.3	6.8	11.4	6.0	15.7	6.4	14.9	5.9	10.3	6.4	11.9	6.1
25-34	7.4	6.4	10.1	8.3	10.3	5.9	12.0	7.7	9.1	5.5	10.1	7.5
35-44	7.3	6.2	8.7	7.0	6.4	4.2	8.0	5.7	6.0	3.9	8.0	6.2
45-54	6.5	4.9	4.8	3.6	4.0	2.5	4.5	2.7	4.5	3.2	4.9	3.5
55-64	4.2	2.9	2.3	1.4	2.1	1.2	2.1	1.1	2.6	1.5	2.5	1.5
65-74	2.3	1.3	0.7	0.3	1.2	0.6	0.7	0.5	1.2	1.0	1.0	0.6
75 and over	1.2	0.6	0.3	0.1	0.3	0.2	0.4	0.2	0.7	0.6	0.5	0.3

Source: Calculated from: United States Census of Population, Alaska, 1960, U. S. Bureau of the Census, PC (1)-38 Final Report.

COMPOSITE TABLE OF POPULATION STATISTICS

	Alaska's Rural and Urban Population by Region 1960	Urban Population as % of Total Population in each Region 1960	% Distribution of Aboriginal Population by Region 1960	Aboriginal Population as % of total population in each region 1960	Racial Characteristics of Alaska's Population by Region 1960	
ALASKA				19.0%	Total	226,167
Rural	140,400				White	174,546
Urban	85,767	38%			Native	43,081
					Other	8,540
SOUTHEAST			21.4%	26.1%	Total	35,403
Rural	18,886				White	25,354
Urban	16,517	46.6%			Native	9,242
					Other	807
SOUTHCENTRAL			12.8%	5.1%	Total	108,851
Rural	52,912				White	98,733
Urban	55,939	51.4%			Native	5,514
					Other	4,604
SOUTHWEST			33.2%	68.1%	Total	21,001
Rural	21,001				White	6,381
Urban		0.0%			Native	14,314
					Other	306
INTERIOR			10.8%	9.4%	Total	49,128
Rural	35,817				White	41,789
Urban	13,331	28.1%			Native	4,638
					Other	2,701
NORTHWEST			21.8%	79.5%	Total	11,784
Rural	11,784				White	2,289
Urban		0.0%			Native	9,373
					Other	122

CRITERIA FOR ESTABLISHING REGIONAL BOARDING HIGH SCHOOLS*

1. In order to provide a broad curriculum including sufficient electives for the nonacademically- and academically-inclined student, a minimum enrollment of 300 students is necessary.

2. Where practicable, students should enroll in the regional high school nearest their homes, but schools should be open to all eligible children of the State.

3. Costs of construction and shipping must be taken into consideration so that the best school plant facilities can be obtained for the amounts expended.

4. The school should be located so that it is easily accessible to students and members of the professional staff. This criterion implies a location near a major transportation hub.

5. Wherever possible, existing school facilities should be utilized for regional boarding high schools.

6. Adequacy of existing community facilities such as water, sewers, and fire protection should be taken into account in determining school centers and sites.

7. The community should have a sense of responsibility and indicate active support for the youth residing in the community and for those students brought into the school from adjoining villages.

8. Consideration should be given to employment and cultural opportunities. The school should not be an isolated entity but should be a true community school. It is essential that a free interchange of activities between the school and the community be encouraged.

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* An Overall Education Plan for Rural Alaska, revised, Governor's Committee on Education, February 28, 1966, pp.11-12.

The organized districts should operate those boarding schools located within their boundaries. The State or the BIA would reimburse the school district for the cost of educating the nondistrict students.

In the event that some of the smaller school districts have excess space, the State should explore the possibility of placing boarding school students from the rural areas in these schools. This may require, in some cases, placement of children in approved homes near the school location.

Representatives from the State Department of Education and the Bureau of Indian Affairs should make concerted efforts to insure that boarding school space is utilized effectively. Applicants for admission to any boarding school should be screened by officials from both agencies to help insure placement of students in schools nearest their homes (assuming space availability) and in schools providing programs most appropriate for a particular student in light on his abilities and interests.

MEMORANDUM OF GENERAL AGREEMENT
STATE OF ALASKA--BUREAU OF INDIAN AFFAIRS

1 March 1962

1. Public education in Alaska is a primary responsibility of the State of Alaska. This responsibility extends to all children within the State.

2. The State Government will do all that its resources will allow in order to meet the educational requirements of all its children. In the State's continuing effort to do all that might be expected, close attention must be given local participation in the support of public school operations.

3. The educational effort of the Bureau of Indian Affairs in Alaska has been and will continue to be directed toward the attainment of educational goals to which the State and Federal governments are committed but which cannot be attained by the State alone because of financial limitations.

4. It is the mutual goal of the State and Federal governments to establish for all people in Alaska a single system of public elementary and secondary education.

5. All public schools in the State of Alaska should ultimately be included in the State educational system notwithstanding that Federal financial participation will remain essential for some time.

6. It is agreed that there exists today a serious deficiency in the overall educational program in Alaska, particularly with respect to children of high school age who, for lack of facilities, are not in school.

7. It is agreed that a closer coordination will be established between programs of the Federal Government which provide the State with financial aid for education. This will require cooperative planning by

the State Department of Education, the U. S. Office of Education, and the Bureau of Indian Affairs. The Bureau of Indian Affairs intends to operate its schools or otherwise fulfill its commitments to the education of Alaskan natives in a fashion consistent with educational policy as it is developed by the State of Alaska. However, it is agreed that State policy should be formulated with full consideration of the limitations of law which govern Federal activities and financial contributions.

8. Although the Bureau has requested funds for planning new school facilities, the plan of the Bureau may be adjusted to conform as closely as possible to the comprehensive educational programs to be developed by the State.

9. It is agreed that the State of Alaska should formulate an overall plan with local participation for (a) expansion of present high school educational facilities, and (b) transfer of Bureau-operated schools to State management and operation. This planning, of necessity, will include Federal financial participation.

10. Such plan as the State formulates will be the basis for further discussions looking toward agreements which will coordinate Federal and State efforts in the educational field.

11. It is especially to be noted that the Bureau in considering such plans as may be advanced by the State has no fixed objection to the location of high school facilities in any particular community, and it is hoped that State plans for school construction at Nome may be utilized within the overall program.

12. It is agreed that the Bureau of Indian Affairs and the State of Alaska consider the establishment of regional comprehensive high schools

with necessary domiciliary facilities an acceptable approach in providing secondary education.

13. Nothing in this statement is to be interpreted as a commitment by either the State of Alaska or the Bureau of Indian Affairs to a particular approach in meeting the educational problems in Alaska which are of mutual concern. At such time as the State of Alaska provides policy guidelines for discussion with the Bureau of Indian Affairs it is hoped that a commitment to particular actions may be made at both the State and Federal levels.

TRAINING CORPORATION OF AMERICA'S ESTIMATING GUIDELINES FOR FACILITY CONSTRUCTION IN ALASKA

A. STUDENT AREA

Dorms, hallways, associated lounges (not athletic buildings) supervision for dorms, bath areas (either sex)	100 sq. ft per boarding student

B. UNMARRIED STAFF

Since these people will be few, a minimum allowance will be (common, gang type, bath facilities will be used.)	150 sq. ft per person

C. MARRIED STAFF

Separate bath, no kitchenette - 2 rooms (bedroom - living room)	350 sq. ft. per couple

D. MEDICAL FACILITIES

200 students - 10 sq. ft. per student
300 students - "
400 students - "
500 students - 8 sq. ft. per student
600 students - "
700 students - "
800 students - "
900 students - 6 sq. ft. per student
1000 students - "

E. DENTAL FACILITIES

* 200 - 400 students - 450 sq. ft.
** 401 -1000 students - 750 sq. ft.

* An X-ray area w/two to three dental chairs - waiting area and office space.
** Same as above except increase chairs from three to five.

F. KITCHEN DINING AREA (Includes Storage)

0 - 125 students - 25 sq. ft. per person
126 - 450 students - 30 sq. ft. per person
451 -1000 students - 20 sq. ft. per person

% DISTRIBUTION FOR ABOVE SQ. FT.

Kitchen - 30%
Storage - 35%
Dining Area - 35%

(Refrigerator and freezer space 2 cu. ft. per student or U.S. Public Health Service Standards)

Dining area and kitchen must be separated by partitions.

G. RECREATION AREA (Gym, Pool or the like)

0 - 50 students - 50 sq. ft.
51 - 400 students - 30 sq. ft.
401 -1000 students - 20 sq. ft.

H. CLASSROOMS

15 to 25 sq. ft. average per student

0 - 20 students - 20 sq. ft.
21 - 50 students - 18 sq. ft.
51 and above - 15 sq. ft.

I. VOCATIONAL SHOPS

Allow 20 sq. ft. per student
Office occupations, machines, equipment and appliances repair.

J. SCHOOL ADMINISTRATION

Head or Director - 125 sq. ft.
Secy or clerks - 100 sq. ft.
Admin assistant - 100 sq. ft.

10% of total for halls and toilet areas

K. BATH FACILITIES

1. Water closets - 1 for 8 students
2. Lavatories - 1 for 12 students
3. Bath tubs or showers - 1 for 8 students
4. Drinking fountains - 1 for 75 students

Average bath area would be 350 sq. ft.–

L. LIBRARY

15 sq. ft. per student

M. GENERAL STORAGE - (Linens, furniture, maintenance shops, utility closets, boiler, etc.)

Student laundries -

0 - 499 - 18 sq. ft.
500 -1000 - 15 sq. ft.

N. MOTOR POOL BUILDING

Some consideration should be given to housing vehicles in Alaska - no suggestions on sq. ft.

O. AVERAGE COST FOR CONSTRUCTION (Does not include utilities being brought to the property or purchase of land)

An all-concrete building - $35 to $40 per sq. ft.
Concrete block building - $30 per sq. ft.
Wood-type construction - $26 to $27 per sq. ft.
Metal prefab - $20 to $22 per sq. ft.

Special Note: - Building index will increase about 1 to 2% per year. The above is current as of March 1966.

COST INDICES FOR ALASKA

For locations other than the Anchorage area, use is made of the following cost indices upon a comprehensive study made by the Office of the Alaska District Engineer, U. S. Army, Corps of Engineers:

Location	Constr. Cost Index (Seattle-1.0)	Constr. Cost Index (Anchorage-1.0)
Anchorage	1.7	1.0
Barter Island	3.6	2.1
Big Delta	2.2	1.3
Cold Bay	3.0	1.8
Dillingham	2.2	1.3
Fairbanks	1.9	1.1
Flat	2.6	1.5
Fort Yukon	2.6	1.5
Galena	2.3	1.3
Gulkana	2.1	1.2
Haines	2.0	1.2
Homer	2.2	1.3
Juneau	1.8	1.1
Kenai	2.1	1.2
King Salmon	2.1	1.2
Kodiak (Long Island)	2.0	1.2
Kotzebue	2.4	1.4
Level Island	2.0	1.2
Naknek	2.1	1.2
Nome	2.3	1.3
Northway	2.3	1.3
Point Barrow	3.6	2.1
Shemya	3.1	1.8
Tanana	2.3	1.3
Umiat	3.6	2.1
Whittier	1.9	1.1
Bethel (equated to Nome)	2.2	1.3
Sitka (equated to Juneau)	1.8	1.1

APPENDIX B

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12. Zahradnicek, W.T., "Report of the Commissioner of Education", Alaska Department of Education, June 1964.

In addition to the above, the bibliography listed in the Interim Report was utilized as background for this study.

ADDENDUM

SECONDARY EDUCATION FOR RURAL ALASKANS
Interim Report
1 November 1966

In Figure 3, page 30:
Figure 4, page 43:
Figure 5, page 48:

Town of Levelok on Aleutian Peninsula should read "So. Naknek." "Levelok" should be located to the north at the mouth of the Kvichak River.

Town of Nenana is mislocated on Cook Inlet in the greater Anchorage area. "Nenana" should be located in the central region at the point now mislabeled "Nenuna."